Reports on the Survey and Settlement Operations in Bengal
1911-12 to 1913-14

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REPORTS

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE

YEAR ENDING 30TH SEPTEMBER 1912.

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REPORT

OF THE

DIRECTOR OF LAND RECORDS, BENGAL.

TABLE OF CONTENTS.

	Para.	Page.
Preamble	1—3	1
Introductory	4—9	1—3
PART I.		
Major operations	10—50	3—22
Minor operations	51—61	22—24
PART II.		
Effect of Provincial redistribution	62	24—25
Expenditure and accounts	63	25
Maintenance	64	25
Final reports	65	25
Statistical compilations	66	25
Jurisdiction	67	25—26
Training of Munsifs	68	26
Training of Junior officers	69	26
Training of Kanungoes	70	26
Prospects of Kanungoes	71	26
Maintenance of *boundary marks*	72	26
Utilisation of Settlement records	73	26—27
Tours	74	27
Settlement staff	75	27
Conclusion	76	28

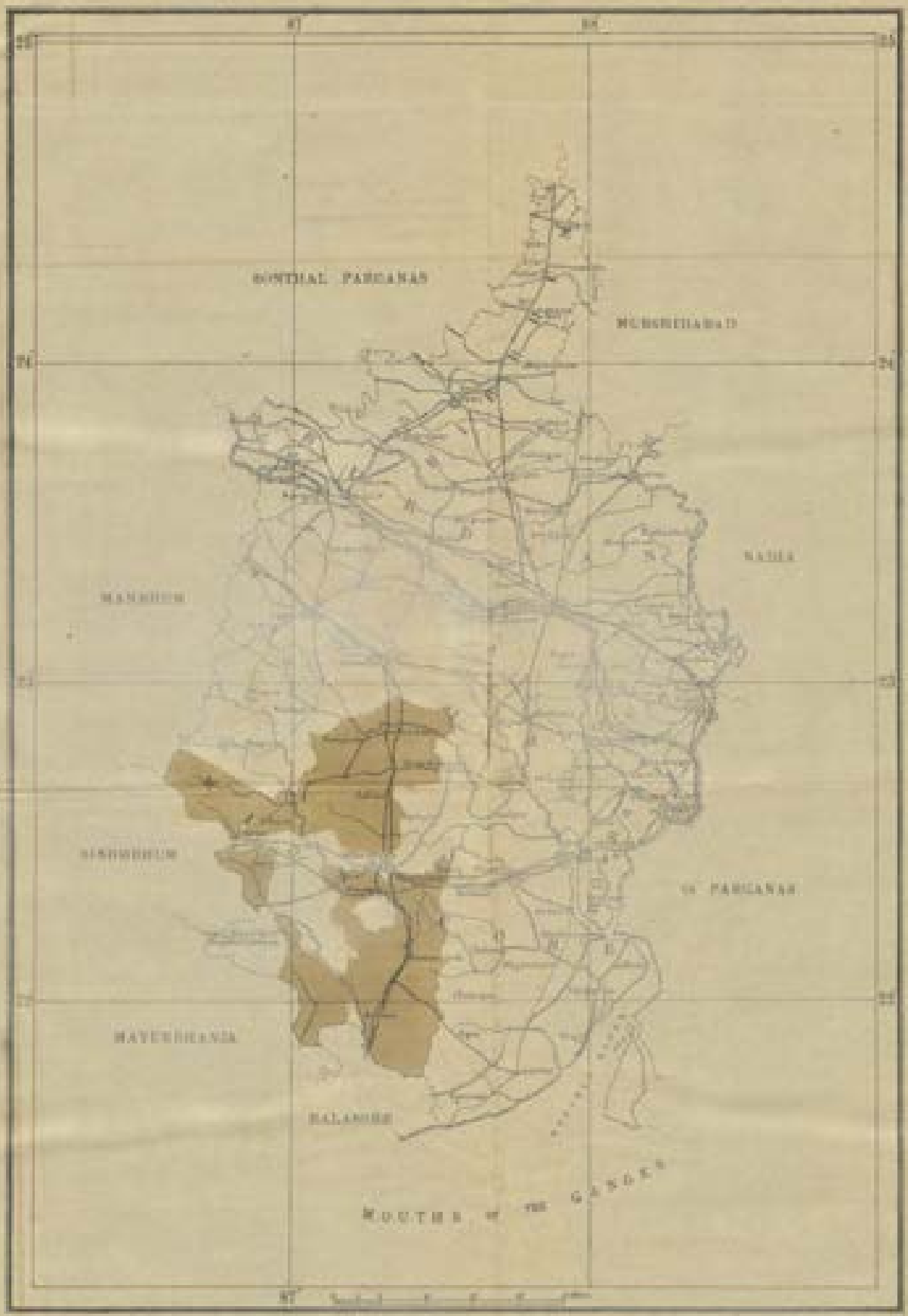
LIST OF APPENDICES.

		PAGE.
APPENDIX	IA.—Progress of survey and the preparation of a record-of-rights in the Province	i
,,	IB.—Fiscal analysis	ii—iii
,,	II.—General progress in Survey and Settlement work during the year ending 30th September 1912	iv—v
,,	III.—Return of disputes and inspection during the year ending the 30th September 1912	vi
,,	IV.—Progress in revision of land revenue during the year ending the 30th September 1912	viii—ix
,,	V.—Progress of rent-settlement in areas not under revision of land revenue during the year ending the 30th September 1912	ib
,,	VI.—Statement showing the nature and number of holdings recorded in each *settlement* during the year ending 30th September 1912 . . .	x
,,	VII.—Statement of expenditure for *work done* (including all book-debit charges) during the year ending the 30th September 1912 . . .	xii—xiii
,,	VIII.—Result of Inspection of Survey marks during the year ending the 30th September 1912	xiv

PROGRESS OF MAJOR SETTLEMENT WORK

BURDWAN DIVISION

TO 30TH SEPTEMBER 1912



PROGRESS OF MAJOR SETTLEMENT WORK

DACCA DIVISION

CHITTAGONG DIVISION

PROGRESS OF MAJOR SETTLEMENT WORK

RAJSHAHI DIVISION

PUBNA

BOGRA

GOALPARA

GARO HILLS

KHASI HILLS

JAINTIA

SYLHET

DEPARTMENT OF LAND RECORDS, BENGAL.

No. 1289.

FROM J. C. JACK, Esq., I.C.S.,
Director of the Department of Land Records, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 21st December 1912.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement Operations conducted in the Province of Bengal during the year beginning on the 1st of October 1911 and ending on the 31st of September 1912. The report covers both parts of the Province and deals with all operations which were under the control of the Director of the Department of Land Records of Eastern Bengal and Assam in the Dacca, Rajshahi and Chittagong Divisions, or of Bengal in the Presidency and Burdwan Divisions until the 1st of April 1912, when the Province of Bengal, as now constituted, came into being.

2. Mr. H. McPherson, I.C.S., was Director of the Department in Bengal until the end of March 1912, having held the office from the 10th July 1907. From the 1st of April I have been Director in the Province then created, having been previously Director in Eastern Bengal and Assam.

3. This report has been divided, like preceding reports in the Province of Eastern Bengal and Assam, into two parts, the first of which deals with the year's work in each district and the second with matters of general application. A summary has, however, been added as introduction, which will serve to explain the extent to which districts of the new Province have been supplied with a record-of-rights.

INTRODUCTORY.

4. For the greater part of the Province of Bengal, the Bengal Tenancy Act (VIII of 1885) as amended to date is the substantive law regulating the relations of landlord and tenant. This Act is in force in 65,069 out of 73,394 square miles in the Province. The rest of the Province is chiefly covered by reserved forest; but in Jalpaiguri and Darjeeling the Act has not been extended to the grants made for cultivation of tea or cinchona, while it has only been extended with reservations to the leases for ordinary cultivation in the Government estate of the Western Duars in Jalpaiguri, and it has not been extended at all to such leases in Darjeeling where Act VIII (B.C.) of 1879 is in force. The latest Acts in amendment of the Bengal Tenancy Act were somewhat different in the Eastern and the Western Bengal Divisions, so that the law is not the same in both parts of the Province; but the differences are comparatively unimportant. Chapter X of the Act, which deals with the preparation of a record-of-rights, is substantially the same in both parts of the Province. On the other hand, the system by which the record-of-rights is prepared had developed on different lines in the two old Provinces, so that there is little similarity in the Government Rules and in the Manuals of procedure.

5. A record-of-rights under the Bengal Tenancy Act may be prepared on application of the landlords and tenants at their expense or by order of Government. In practice resort is only made to the former method when relations between a landlord and his tenants are strained or by the Court of Wards, and as a result, although such applications have been sufficiently numerous, the areas concerned are very scattered and often very small. It will appear that operations of this kind have covered about 3,000 square miles in the Province and have occurred in every district, except Chittagong, Jalpaiguri and Darjeeling.

A record-of-rights may also be prepared by order of Government for the revision of land revenue in areas which are not permanently settled or for the benefit of the general administration in permanently-settled areas. In the former case it is now the established practice to precede all revisions of revenue by a record-of-rights for the better security of tenant-right, while it is usual in the latter case to take up entire districts with the sanction of the Secretary of State and it is proposed ultimately to provide the whole Province with a record-of-rights. When a record-of-rights is prepared precedent to a revision of land revenue, the entire cost is borne by Government. When it is prepared under order of Government to promote the general well being in permanently-settled tracts, it has been the practice for Government to pay one-fourth of the entire cost and to realize three-fourths from the landlords and tenants concerned.

6. In all these operations and in both parts of the Province a map is prepared on the scale of 16 inches to the mile in which every field is separately delineated, while the record-of-rights contains a separate page for every tenancy which enumerates every field included therein, records the rent payable therefor and describes the rights and conditions which apply either by statute or by legal contract to the tenancy. A printed or handwritten extract from the record-of-rights is given to each landlord and each tenant of so much as concerns him, while each is also supplied with a printed copy of the village map. Advantage is taken of the proceedings to decide every dispute which exists in the village regarding boundaries, rights and rents. Such disputes are decided as far as possible in the village and, where they relate to boundaries, invariably upon the land affected.

7. Turning to the districts of the Province, it will appear that a record-of-rights has been prepared for two entire districts:—

Chittagong ...	in 1888-1898	Bakarganj ...	in 1900-1910.

and is in course of preparation in six more districts:—

Faridpur.	Mymensingh.	Midnapore.
Jalpaiguri.	Dacca.	Rajshahi.

In the remaining districts of the Province a record-of-rights has been prepared in 686 square miles out of 3,808 square miles of the temporarily-settled area, and in 2,608 square miles out of 35,884 square miles in the permanently-settled area. It is now in progress in a further 540 square miles. Most of this land is in scattered patches of inconsiderable size, but there are large compact tracts also in:—

District.	Sq. miles.		Completed in—
Tippera and Noakhali	546	The Roshnabad Estate ...	1892 to 1899.
Dinajpur ...	517	The Maldwar, Sankerpur and Uhuranman Estates.	1888 to 1890.
Birbhum ...	136	The Santhal villages in Rampur Hât.	1910 to 1912.
Pabna ...	298	The River frontage ...	Begun in 1908 and still in progress.
Tippera ...	122		

8. No attempt has been made hitherto to keep the record-of-rights in any of these areas up-to-date by any official organization. Even in Government estates there is no machinery for this purpose apart from the staff which collects the Government revenue.

9. Of the total area to which the Bengal Tenancy Act applies, a record-of-rights has been completed in 10,266 square miles, or 16 per cent., and is in course of preparation in 12,608 square miles, or 19 per cent.

In the area to which the Bengal Tenancy Act does not apply, there is a survey of all tea-gardens, a record-of-rights under Act VIII (B.C.) of 1879 of the area occupied for ordinary cultivation in Darjeeling and a survey with a list of occupants in Calcutta.

No detailed programme has yet been prepared for the extension of settlement operations to every district in the Province; but of their necessity in the interests of good government and the general well-being the extracts quoted in this report from the reports of the settlement officers working in all parts of the Province must be sufficiently eloquent.

PART I.

10. Comprehensive operations, which are supervised by special officers and financed from Imperial sources, were in progress in the following districts:—

Faridpur.	Mymensingh.	Midnapore.
Jalpaiguri.	Dacca.	Rajshahi.
	Birbhum.	

In the case of Faridpur, Mymensingh and Dacca, whose boundaries are often the great rivers of the Province, a strip of land 5 miles wide on the far bank of those rivers has also been included in the operations.

In a district settlement, the average area in which new ground is broken each year is 800 square miles and five years are normally occupied in carrying that area to completion.

The first year is employed in making a traverse survey by professional agency. This work is under the control of the Director of Surveys and is not dealt with in this report.

The second year *is* employed in making a survey of the fields in every village and in preparing a record of the occupants in possession.

The third year is employed in attesting by the agency of responsible officers the record so prepared, in recording the rental and status of all tenants, in publishing the draft record and in deciding objections preferred against any entry made therein.

The fourth year is employed in a final scrutiny and in the preparation of a fair copy of the maps and record.

The fifth year is employed in a final publication of the record-of-rights, in recovery of costs from affected parties and in deciding cases by Civil Court procedure, which may be preferred under sections 105 and 106 of the Bengal Tenancy Act after final publication.

In this report the second year's work will be succinctly referred to as field work, the third year's work as attestation, the fourth year's work as fair copy and the fifth year's work as publication.

FARIDPUR.

Programme:— Fair copy, 600 } sq. miles. } Publication, 300 }
Performance:— Ditto, 546 } sq. miles. } Ditto, 332 } sq. miles.

11. The operations in Faridpur began in 1904 and, with the river zones in Pabna and Tippera, cover an area of 2,909 square miles. The Settlement Officer is Mr. B. C. France, I.C.S. who went on leave in May, leaving Mr. W. H. Thomson, I.C.S. to act as his substitute for the rest of the year.

Normally the district should have been completed in the previous year, but for a variety of reasons progress has been greatly delayed. The main

reason for the delay is that Faridpur has been the pioneer district in all the more important reforms in procedure and much time has necessarily been spent in obtaining orders for their introduction. In particular there was a delay of two years before the substitution of a printed in place of a hand-copied record was sanctioned.

12. A great amount of multifarious work of a routine nature in the disposal of pending cases, in scrutiny of the record and in the preparation of statistics was done in the year; but even so it was found impossible to complete the area in these respects. The record in 500 square miles still remains for scrutiny and statistics are still pending for preparation in 1,000 square miles. The cost rate of these items was however very greatly reduced. In the work of printing the record an unexpected success was achieved. The programme which consisted of the printing of over half a million pages was practically completed and in both the amount of outturn and the lowness of cost rate the pessimistic anticipations of the Controller of Printing the Government of India were completely falsified. It will be remembered that he considered that the daily outturn of "formes" on a single press would not exceed 12 or 16, whereas the local estimate was 24, and that the rate of 2 annas a page which was proposed would not enable the compositors to earn a living wage which was estimated at Rs. 20 a month. In fact, at the end of the year the average daily outturn of "formes" on all presses was 30 and in some presses it reached 60, while although the rate of payment per page was reduced from 2 annas to $1\frac{1}{2}$ annas yet the average monthly earnings of the compositors had reached Rs. 25. The credit of this success is entirely due to the great efforts made by the local officers and to the refreshing spirit of enthusiasm, which animates all ranks working in the presses. It is only necessary to quote from the Settlement Officer's report to complete the tale of success in this experiment: "It is very satisfactory to see how pleased the people are with their printed extracts and how much more they respect them than a handwritten copy." The colossal scale of this experiment will be understood when it is remembered that on completion it will provide a library of land-tenancy of some two million printed pages.

13. During the year an order for the apportionment of costs in this settlement (Government order No. 1202 T.—R., dated 1st August 1912), was obtained. The rate of the levy was $2\frac{3}{4}$ annas in the rupee on rental for raiyats and 4 annas in the rupee on profits for landlords, and the total sum apportioned (three-fourths of the nett cost) was Rs. 675 per square mile which, despite the introduction of *bujharat* and of printing, is very little more than the sum apportioned in Chittagong and Bakarganj. The programme for final publication and recovery of costs was carried out. The cost was within the estimate and payments came in freely despite an attempt by some members of the local bar to retard them. Many inaccurate rumours were in circulation as to the method in which the calculation of costs had been made. As there is nothing to conceal, there appears to be no reason why the accounts should not be published in the local newspapers when recovery of costs is undertaken in any settlement. As no officers were available, no attempt was made to dispose of the few cases which were instituted under sections 105 and 106 before the end of the year.

14. Several special duties engage the attention of the Settlement Officer in Faridpur. These are—

(1) the revision of land revenue in the temporarily-settled tracts,
(2) assessment of alluvion under Act IX of 1847,
(3) cess revaluation of the district,
(4) partition of estates.

In revision of land revenue good progress was made and the few estates which remain will soon be disposed of. The temporarily-settled area consisted chiefly of alluvial lands in the large rivers and in many a great increase in fertility due to rich alluvial deposits permitted a considerable increase in the rental. The rents fixed were always below those realized by private landlords in the vicinity. The total increase obtained in estates completed was 24 per cent. on a former revenue of about a lakh of rupees.

Assessment of alluvion has been completed, although one difficult case has been returned for further information. The great majority of the proceedings are still pending with the Board of Revenue for final orders and it would be premature to discuss the financial results. Assessment of alluvion is very troublesome work which has occupied much of the energies of the Settlement Officer.

The work of cess revaluation has also proved to be very troublesome owing to the numerous petty tenures in the district. Progress was not satisfactory, although it very much improved towards the end of the year. Revaluation had been completed in about one-third of the district with the result of doubling the assessment, when the cyclone, which destroyed the Settlement Office after the close of the year, did immense damage in the Cess Revaluation Office which it will take a year's time and a large expenditure to repair. It was intended to complete the revaluation so that it should come into force from April 1913. This is now impossible and it will be 1914 before the new valuation can take effect.

15. The officers of the settlement were too much occupied with revision of land revenue to complete the partition programme. There were 15 cases on the file, of which the smaller are nearly ready and the larger should be finished by June 1913. Some of the cases are very intricate, while partition generally is so much a matter of discretion that great care is necessary in order to avoid hardship to some of the interested proprietors.

It had been intended to complete the final publication of the record-of-rights in this settlement by March 1914; but it is not as yet certain whether this date will not require revision as a result of the disorganisation produced by the cyclone which occurred on the 1st of November. Had it not been for this event, it would have been possible to write with pleasurable anticipation of this settlement as of a work of which the end was in sight.

JALPAIGURI.

Programme:—Attestation, 502 *Performance*:— Ditto, 496	sq. miles.	Fair copy, 916 sq. miles. Ditto, *nil.*	

16. The settlement operations in this district began in 1906 and are now nearing completion. The Settlement Officer is Mr. J. A Milligan, I.C.S. who has held charge of the office with the usual leave interruptions since the beginning. He has also been Deputy Commissioner of the district since 23rd April 1912.

Normally half of the district should have been finally published. Delays however have occurred in the completion of cess revaluation and of revision of land revenue, which have necessarily involved the postponement of the preparation of the fair copy.

17. The most important work of the year was the attestation of the last block of 502 square miles. This has been accomplished except that the disposal of objections under section 103 A, which are few in number and were for the most part filed late in the season, has been postponed until next year. In 81 square miles attestation had to be done twice owing to bad work by an officer on the staff, who has since been transferred to Assam. The new system of making the final scrutiny of the record in camp was introduced during the year, as the cost of the previous work at head-quarters was excessive. Although only half the programme was accomplished, this outturn must in the circumstances be deemed satisfactory, while the reduction in cost is very satisfactory indeed.

18. The Settlement Officer remarks about tenancy conditions in the area under attestation as follows:—

The system of landholding was originally a simple system, but has been complicated in places to an extraordinary degree by the lack of any clear principles in the transfer and sub-infeudation of shares. The sub-infeudation and transferring of shares—integral, fractional, undivided or imaginary—are further complicated by the adoption of the same procedure by mortgagees and temporary lessees. I believe that the record-of-rights will be found exceedingly useful by the people of this area, as it

will help them to get a clear idea of their own interests, which most of them are at present very vague about, and it will tend to establish an intelligent system of land dealing.

Almost the whole of the attestation area consists of the Chaklajat zamindari of the Maharaja of Cooch Behar, but the Rajas of Kakina and Tajhat and the Mustafis of Cooch Behar also have small zamindaris and there is a number of revenue-free estates most of which were in existence before the creation of the zamiadari and were at that time recognized by the Government. Under the zamindar the usual tenant is the *jotedar*, a very few *patni taluks*, *upenchoukis* and *tjaras* being found. The *jotedar* is usually a resident cultivator, but there are some big men, notably the Mustafis who hold many *jotes* under the zamindars. The *jotes* are heritable, but not transferable without the consent of the zamindar, and nearly all of them are held at rents which are liable to enhancement. *Jotedars*, if they sublet, usually put in either *chukanidars* or *adhiars*. Both of these are in origin generic terms rather than specific names, but they are now used as describing a definite form of tenancy. Below the *chukanidar* there is very little infeudation, a few *dar-chukanidars*, fewer *dar-a-dar chukanidars* and fewer still *nim-dar-a-dar chukanidars* are found, but these various grades all partake of the essential qualities of the *chukani* form of tenancy, differing only in degree. The word *mulandar* is used as interchangeable with the word *chukanidar* in most parts of the tract. I have not succeeded in getting at the derivation of these two words *mulan* and *chukan*, but they seem to mean "the position of one who holds land under another, primarily no doubt a *jotedar* at cash rent", for cash rent is invariably implied in the name.

Adhiars are divided by us into two classes: those who received khatians and are considered eligible for status under the Tenancy Act and those who are treated as mere occupants. The basis and ultimate differentiation of this classification have been fully dealt with in previous reports and orders of the Board.

The proportion of land held in occupancy right is 65 per cent. of the total area. I have not at hand figures showing the exact proportion of land cultivated under produce-rent, but this system is widespread and over two-thirds of the cropped area are cultivated by one or other class of *adhiars*.

Cases of the *de jure* raiyat being a non-cultivator are exceedingly rare. The popular view of the question of eviction is that cash-paying tenants cannot be ejected at will, whereas produce-paying tenants can be so ejected. As a matter of fact, ejectments are of rare occurrence, but at the end of every year a great many spontaneous and perfectly amicable changes of land and masters take place among the *adhiars*. It was this habit of many *adhiars* of changing and moving about that led me years ago to suggest a discrimination between them and the *adhiars* who settled down in one place.

Real *abwabs* are not systematically levied, though occasional exactions of the nature of subscription for special purposes are imposed. I have not found any really bad cases of exactions of *abwabs* in this tract. Of course the realization of a little cess is common here as elsewhere; but this, it is hoped, will be minimized by the record of the legal cess.

No steps under section 58, Bengal Tenancy Act, have been found necessary as the practice of giving receipts is universally followed.

19. The orders of Government on the subject of the form in which the final copy of the record-of-rights should be prepared were obtained in Board's letter No. 935 A., dated 21st May 1912, and involved the printing of the record in the temporarily-settled area at Faridpur and the preparation of a copy by hand for the permanently-settled area at Barisal. The prevalence of malarial fever made it desirable to transfer this work from Jalpaiguri. It was not however possible to begin the work during the year under report, as final orders in the controversy about cess revaluation were only received on the 8th November after the close of the year. The preparation of maps is well in hand and of statistics backward, but in this the lost ground can easily be made up.

20. The revision of land revenue was delayed in Block A by the necessity to refer for orders on the assessment of *chukanidars* and on progressive enhancements. This reference was made on 3rd August 1912, but Government orders have not as yet been received. When these orders are received, the confirmation report of the rent-roll of Block A can be sanctioned. In respect of Block B the rates of rent proposed by the Settlement Officer were sanctioned in Eastern Bengal and Assam Board's letter No. 510 S. & S., dated 27th February 1912. In respect of Block C, the Settlement Officer's proposals for all except a single small pargana were received after the close of the year. The rates proposed in Block B are on the average four annas per acre less than those in Block A, as the tracts concerned were not so well developed, but the soil classification adopted was approximately the same. These rates are very moderate in their incidence, as they involve a total rental equivalent to 7 per cent. only of the value of the gross outturn in crops.

As the current settlement expired in 1907 or 1908, there has already been a delay of four years in bringing the new rates into force with a consequent loss of additional revenue in those four years of a considerable amount. It is desirable therefore that the new revenue should come into force from 1913 and for this purpose it is necessary that in the coming settlement year the Settlement Officer should complete the final publication of the whole temporarily-settled area.

21. Owing to the delay in the decision of the questions relating to the method of cess revaluation, no revaluation could be made by the Settlement Officer during the year. The necessary calculations are, however, far advanced in three-fourths of the district and little time will now be necessary to bring them to completion. The question at issue was whether a tenant who had sublet a portion of his land and reserved a portion should be treated as a raiyat or as a tenure-holder or partly as a raiyat and partly as a tenure-holder for the purposes of the Cess Act. It was finally decided (Board's No. 2670 A., dated 28th October 1912, to the address of the Commissioner, Rajshahi Division) that he should be treated as a tenure-holder, which is the practice followed in Bakarganj and Faridpur.

22. The programme of this settlement in next year is to carry the record for the whole district up to final publication. If this programme is not carried out, an addition to the cost of the operations is certain. It cannot be carried out unless pending questions are decided and the new rates in Block C are draft-published early in 1913.

MYMENSINGH.

Programme—	Field work, 1,250 sq. miles Attestation 875 sq. miles	Fair copy, 595 sq. miles. Publication, 356 sq. miles.
Performance—	Field work, 1,250 sq. miles Attestation, 875 sq. miles	Fair copy, 395 sq. miles. Publication 331 sq. miles.

23. The Mymensingh operations began in 1908. The district measures 6,500 square miles in round figures, in 2,700 of which ground has not as yet been broken. It is not expected that the operations in the district will be completed before 1918. Mr. F. A. Sachse, I.C.S. has been the Settlement Officer from the beginning of the operations with the usual leave interruptions, one of which occurred in the year under report when his covenanted assistant, Mr. J. W. Nelson, I.C.S. acted as his substitute from 7th May 1912 to the end of the year.

In this settlement progress has kept pace with the normal programme in field work and attestation, but is short by two-thirds in fair copy and by more than one-half in publication.

24. There is little special work. Only 20 square miles came up for revision of land revenue; assessment of alluvion has not as yet begun in the absence of comparative maps; no cess revaluation has been ordered. There is, however, a heavy programme of partitions of estates. Partition cases have been filed in respect of the great Sherpur, Alapsingh, Attia and Susang estates and of some smaller estates, but work has as yet only been taken up in Sherpur. These estates cover so large a part of the area surveyed that delay in making or confirming the partition will mean delay in final publication of half of the whole area and probably disorganization also of the ordinary arrangements for printing the record and recovering costs. Under the Partition Act delay is probable, if not inevitable. In the absence of the permanent Settlement Officer it was impossible to examine the position, but on his return a special report will be presented to Government on the subject. It would be possible to make partitions by the agency of the Settlement Officers after final publications; but while this solution meets all other difficulties, it involves the publication of a record-of-rights, which will become out-of-date immediately.

25. Apart from the area delayed by partitions, the final scrutiny of the record and the preparation of maps and statistics appear to be up-to-date, while sufficient progress has been made in printing the record. To press on

printing now would be to leave without employment a trained staff, which is only too likely to desert, while to reduce printing on the other hand means a delay in the recovery of costs. In the work of printing much improvement was made. The number of pages printed increased from 6,000 a month at the beginning of the year to the full estimated outturn of 13,000 a month at its close. The cost has now been reduced considerably below the estimated amount and the experiment generally must be pronounced almost as great a success in Mymensingh as in Faridpur.

26. During the year Government orders (No. 1201 T.—R, dated the 31st July 1912) were received prescribing rules of apportionment of three-fourths of the cost of the operations between the landlords and tenants. The amount to be recovered was estimated at Rs. 480 a square mile, which is naturally less than the amount in Faridpur, where land tenure is infinitely more complicated. The principle of apportionment was, as in the case of Faridpur, that the landlords should pay two-thirds and the raiyats one-third. The raiyats were assessed at 5 annas for each acre of their holdings and the landlords at 4 annas in each rupee of their profits. Payments were made willingly and it was unnecessary to resort to coercive measures.

The majority of the cases after final publication have been disposed of. The only point of interest was a dispute between the Jafarshahi zamindars and their tenants as to the length of the local *hât* (unit of measurement), which was decided in favour of the tenants.

27. Mr. Nelson has submitted a very interesting report on the areas in which field work and attestation have taken place. In field work the Tangail subdivision together with 125 square miles in Pabna district on the opposite bank of the Brahmaputra were taken up. This area included 100 square miles of the Madhupur jungle, which is being gradually brought under cultivation and an isolated block of jungly highland 25 square miles in extent known as Gar Gazali in Ghatail thana. Between the Madhupur jungle and the river the land is so lowlying that it is under water from May to December. Round Tangail population is very thick with a large element of the industrial and professional classes and extensive well-wooded village sites were common. Elsewhere in Tangail the area was very similar to that found in other parts of Mymensingh. In the whole area there were 1,084 fields and 308 tenancies to the square mile against an average of 810 fields and 192 tenancies in the parts surveyed in previous years. In preparing the record the chief difficulty lay in the excessive subdivision of estates, especially in the Attia pargana. There was very little sub-infeudation. The following extracts are taken from the Settlement Officer's report:—

The most noticeable feature of the Tangail area is the small size of the revenue survey mauzas. The total number was 2,379, averaging 280 acres. In one part of thana Gopalpur there were 97 villages, averaging 70 acres. Villages of less than 10 acres were common. Instructions were received from the Board of Revenue about the amalgamation of small villages. As each of these villages was traversed separately and had a separate sheet, amalgamation was seldom possible at kistwar, but was carried out at khanapuri in accordance with a circular issued by the settlement officer. The total number of villages after amalgamation is 2,038.

By far the greater part of the land is cultivated by occupancy raiyats. Under-raiyats are not numerous. In a few cases raiyati holdings have been bought by *mahajans* (money-lenders) and are cultivated on the *barga* system. *Bargadars* under proprietors and tenure-holders are rare. The khas mahal authorities are not always sufficiently careful in letting out lands. In Nandaboyra I found that the greater part of the village had been settled with *mahajans* and zamindar's amla who lived close to Tangail and cultivated the land through *bargadars*.

Mortgages are common. In the usual form known as *myadipatta* the *mahajan* takes the land for a fixed term of years as the equivalent of both principal and interest.

Rent disputes cannot be dealt with until after attestation, but are likely to be fewer than in the earlier blocks. They are most numerous in Pukhuria, where the proprietors, espicially Babu Hem Chandra Chaudhuri, are somewhat oppressive. In Attia pargana a custom, known as *sora komi*, prevails, according to which one-fifth of the measured area is not assessed to rent. The origin and reason of the custom are not known. It is much to be preferred to the custom of *anugraha komi* in Alapsingh, which is referred to later.

Rent-receipts in the prescribed form are generally given as required by the Act, though in some cases blank paper receipts known as *rokas* are given for *kists*, a *dakhila* being given only for the total rent of the year. No action has been taken this year under section 58. The prosecution of Babu Anath Bandhu Guha two years ago, though

unsuccessful, has had a salutary effect, and rent-receipts are now being given wherever the tenants will accept them. Where a rent-dispute exists, the tenants are naturally suspicious of the *dakhilas* and prefer not to accept them until after the close of settlement operations.

Raiyati holdings are not transferable and are seldom transferred as a whole. But the transfer of single plots is common and is generally recognized by the landlord on the payment of a *nazar*. The average selling price is Rs. 75 to Rs 100 a pakhi, and the *nazar* varies from 25 per cent. to 40 per cent. on the selling price.

In some estates the zamindar tries to enhance the rent generally about 4 annas a pakhi when settlement is made with a purchaser. This practice, however, is not very common.

Small *nazars* on transfer by inheritance are common, but a remarkable scale of exactions existed for many years in the estate of Nawab Syed Nawabali Chaudhuri. It was the cause of serious trouble between the Nawab and his tenants two years ago and is reported to be still in force.

The scale is as follows:—

Heir—	Pakhi per Nazar.
A son	... 1 4
A minor brother	... 12 0
A major brother in joint mess with deceased	... 24 0

A widow was allowed to keep 8 pakhis only. Any other heir had to pay the full amount of *nazar* as if on a new settlement.

The exaction of *gram kharcha* or collection expenses is almost universal. It amounts usually to 2 annas in the rupee, and is supposed to cover the cost of collection and establishment. Other *abwabs*, such as *tahuri*, *parab*, peon's expenses, etc., which go to the amla, are no more than the usual commission exacted by intermediaries in all transactions in this country. Babu Hem Chandra Chaudhuri realizes a compulsory contribution of ½ anna in the rupee to support the dispensary at Hemnagar. A few instances of unusual exactions are reported, *e.g.*, 8 annas in the rupee to pay the landlord's debts and 8 annas in the rupee to buy an elephant.

The zamindars of Attia pargana are notorious for their illegal exactions, which more than make up for the remission known as *sora komi*.

In one village (Mashajan) the *abwabs* in tauzi No. 10 are given as follows:—

	As. P.
Tahari, per rupee	0 6
Naib Nazar, „ „	0 2
Shab „ „ „	0 6
Gram Kharcha „ „	4 0
Zahid roz, per pakhi	0 9

In another the ordinary raiyat pays 8 to 12 annas per rupee as *abwabs* under nine different heads, and a tenant who takes new settlement of land pays under 12 heads.

The *abwabs* appear to vary greatly from village to village, but probably are seldom less than 4 annas per rupee and frequently as much as 8 annas.

28. In the Pabna river zone the whole area is subject to constant alluvion and diluvion. The boundaries of villages and even the location of any particular village is uncertain and riots are very frequent. When land is diluviated the raiyat continues to pay the rent, so that if it reforms he will enjoy it without payment of a fresh *nazar*. This is the case also in the Government estates, though the motive of the tenants is by no means clear; thus in one estate the tenants were still paying rent for a village that had been at the bottom of the river for 20 years. Government does not demand *nazar*, but the custom seems to show that the local khas mahal subordinates disapprove of Government's moderation. No trace of the *ut-bandi* system was found in the Pabna area.

29. The area under attestation lay round Mymensingh town in thanas Kotwali, Gaffargaon and Muktagacha and for the most part in Alapsingh pargana, although a few villages belonged to parganas Ran Bhawal, Mymensingh and Attia. The prominent features of the tract were the great size of the villages, the large number of rent disputes in Alapsingh pargana, the confusion in the unpartitioned lands of that pargana and the excessive subdivision of some of the estates of Ran Bhawal by partition. Tenures were few and were rarely carried beyond a single grade, so much so that 89 per cent. of the land was in the occupation of occupancy raiyats on cash rents and only

2 per cent. was held on produce rent. Only two acres in every hundred were reserved by proprietors, while only 4 acres were sublet to under-raiyats (or tenants at-will). The nominal raiyat is nearly always the cultivator and enjoys security of tenure. The produce-rent payable is usually half the produce on the *barga* system and the *bargadars* are regarded as tenants-at-will and are generally changed every year. In many cases they cultivate the land of widows and minors. It is not uncommon to find the mortgagor cultivating the mortgaged land as *bargadar* of the mortgagee.

The following extracts from the Settlement Officer's report deal with rents and the relations of landlords and tenants:—

The chief landlords of pargana Alapsingh are Maharaj-kumar Sasi Kanta Acharya (4 annas) and Raja Jagat Kishore Acharya (4 annas). Although the rates of rent in the Maharaj-kumar's estate are higher than in any other share, there were practically no disputes between him and his tenants. This is due to the fact that the rents in this estate were settled some time ago and since then owing to good management they have been systematically realized. Moreover, there are fewer irregularities and illegal exactions in the Maharaj-kumar's estate than in any other zamindari; hence the tenants are not dissatisfied with him.

Raja Jagat Kishore is reported to be a very kind and considerate landlord, but the management of his estate is not efficient and the amlas are oppressive. Though the rates of rent are not so high as in the Maharaj-kumar's estate, illegal enhancements are much more numerous. In some of the Raja's villages the tenants had turned refractory owing to the attempt on the zamindar's part to enhance the rents.

There were very few rent-disputes in the *ijmali* mahals (*i.e.*, unpartitioned lands of the whole body of Alapsingh zamindars) as the landlords not agreeing between themselves have not been able to enhance the rents, but in spite of this the rent realized by the different co-sharers is not always in proportion to their share.

The origin of most of the rent disputes was the attempt on the part of the landlords to enhance the rents either in view of the settlement operation or within the last five or six years. These new *bandobasts*, as they are termed, were all originally opposed by the tenants, who were however being gradually coerced into accepting them when the settlement operation came to their rescue and gave them an opportunity to make a stand. It is practically certain that if the settlement operation had been postponed or delayed the landlords would have been successful in making the tenants agree to the enhancements. There were other cases in which the enhancement had been made 8, 10 or 12 years ago, and the landlords had succeeded in exacting *kabuliyats* from the tenants who had even been paying those rents, but taking advantage of the settlement operation the tenants disputed their legality.

In all these cases careful enquiries were made, and the provisions of section 29 of the Act freely enforced. Wherever the existing rents were found to be illegal the old rents were recorded.

On the other hand in some villages tenants, on the advice of some village tout, took copies of old road-cess returns and claimed rents according to them in spite of the fact that they had been paying different rents for 20 years. In these cases also the rents were recorded strictly according to law.

In a few cases agreements were accepted under section 109B by the attestation officer, where, although rents were not strictly legal, they were fair and equitable and a refusal to record would have raked up old disputes. In all these cases the Settlement Officer personally made enquiries before sanctioning the action under section 109B.

Throughout the area held by Alapsingh zamindars there is a custom of deducting a variable amount from the rent calculated at the village rates. The deduction is known as *anugraha komi* and is entered in the zamindar's paper and the *kabuliyats*. The more influential the raiyat the greater the deduction, and there can be little doubt that the purpose of the deduction is to induce the influential villagers to agree to an enhancement of the village rates and to bring pressure to bear on the poorer tenants.

In Ran Bhawal the estates have been excessively subdivided by inheritance and purchase. Partition cases have been numerous. Thus taluk Muhammad Ekbal, which was originally comprised in three tauzis, is now divided into some 200 tauzis. It is common practice for a well-to-do raiyat to purchase a share in the taluk under which his *jote* falls. He then ceases to pay rent and alleges that his *jote* is now his *khamar* land. Before long the estate is partitioned by the Civil Court, and the purchaser gets some 20 or 30 acres as his share and if any other raiyats fall within this share, he does his best to evict them. At each partition of these estates some land has been left *ijmali* (unpartitioned). Great efforts were made to discover all the shares in the superior right over these *ijmali chaks*, but in many cases the attempt had to be abandoned. In such cases a separate khatian was opened showing as landlord all the tauzis under which the *chak* fell.

In Bhaluka thana, where the villages are jungly and thickly (*sic*) populated, these small transfers did not take place, and whole villages were left *ijmali* under the more important co-sharers. Thus in Jamirdia an *ijmali* village of taluk Muhammad Ekbal there are 43 tauzis and the landlords collect rent from the raiyats in 64 separate groups.

Dacca.

Programme:—Field work, 645 sq. miles. Attestation, 545 sq. miles.
Performance.— Ditto, 660 ditto. Ditto, 545 ditto.

30. The settlement operations in the district of Dacca began in 1910, although 270 square miles of the river zone had been surveyed in 1908-1910 in conjunction with the Faridpur operations. The actual progress has kept pace with the normal, as it had always been intended to publish the records of this river zone along with the first block of the district. In the meantime the maps and records in these 270 square miles have been thoroughly scrutinized and made ready for fair copy. Mr. F. D. Ascoli, I.C.S. has been the Settlement Officer from the beginning of the operations.

31. In this settlement, in addition to the ordinary work, enquiries preparatory to the assessment of alluvion under Act IX of 1847 were made, but no formal diara proceedings have as yet been drawn up. The enquiries were successfully and economically made at the time of attestation. There is in the district a certain amount of temporarily-settled area, in which a revision of land revenue will begin next year. Government orders are under issue for the cess revaluation of the district by the Settlement Officer. In addition it had been proposed that the Settlement Officer, in pursuance of the orders of the Eastern Bengal and Assam Government (No. 1934 R., dated 19th August 1910) should take up the partition of estates. Applications have been made in 74 estates, but the formal declaration of partition has not as yet been made by the Collector. The applications cover a large area and, as in Mymensingh, the effect of the probable delay upon the ordinary settlement proceedings is now under examination. The Settlement Officer is also making a survey and preparing a record-of-rights of Dacca town under Government orders (No. 1287 T.—R., dated the 27th August 1912). The work had just begun at the end of the year under report.

32. Dacca is the most difficult district at present under settlement. Although the sub-infeudation is not on the Bakarganj scale, yet it is considerable, while the intermingling of estates in the villages is extraordinary. The thak authorities described Dacca as the most troublesome district with which they had had to deal and it bids to deserve the same reputation at the present day.

33. The area under field work was chiefly in the south of the district and consisted of the famous tract known as Bikrampur in thanas Munshiganj and Srinagar together with thanas Rupganj and Narayanganj. A small area of 80 square miles was taken up in addition to the programme in order to complete the survey of both banks of the Dhaleswari river.

Apart from Bikrampur, the survey, though not easy, was not exceptionally difficult, and the record, although voluminous, was not exceptionally troublesome to prepare. In two distinct tracts the landlords were found to be very oppressive, while in the temporarily-settled Meghna chars it was found that the landlords invariably collected much higher rents than those fixed by the revenue officers. The Settlement Officer remarks, however, that this was largely due to the extraordinary nature of the previous settlements. Great difficulty was experienced in reconciling the facts on the ground with records prepared in partition proceedings. A large number of estates had been partitioned, and it was found that almost without exception the records on which the partitions were based were full of the grossest errors. In many cases the errors of omission and commission both in survey and in the record of tenancies were so frequent and so comprehensive that it was impossible to utilize the partition proceedings at all. In one notorious case of this kind the partition had taken 35 years to effect. Many of the partitions were merely targets for the ridicule of the proprietors on whose application and at whose cost they had been prepared. In respect of tenancy conditions the most serious symptom discovered was the prevalence of *bargadars* or tenants paying a rent of half the produce. These tenants are treated by all classes of landlords as tenants-at-will, although under the law they have frequently a right of occupancy. The Settlement Officer remarks upon the subject :—

The extent of *barga* interests in these two thanas is very great indeed, and I regret to say that the system appears to be increasing with some rapidity. The matter will be the

subject of a special reference. I would for the present merely call attention to a most pernicious practice now prevalent whereby cash-paying raiyats are converted into *bargadars*, after which the rent is commuted into cash based on the actual value of half the produce with the result that the cultivator pays at about eight times the normal rate of cash rents. This is an evil adaptation of a system known as *dhaki barga*, and I understand that it is the invention of a gentleman who is a mussif. It has been put into practice by him generally around his home, and, owing to the fact that the tenants are in debt to him, it is impossible for them to object. Another pernicious system much in evidence is the conversion of cash rent to *barga* as security for a mortgage. In the former of these two cases the procedure is clearly an infringement of section 29 : in the latter case I doubt whether any action on our part will be possible.

34. I should add that an experiment was made in the interests of economy in an area of 2 square miles in Narayanganj thana of taking up field *bujharat* without a preliminary khanapuri. The experiment was a failure. Additional expenditure resulted in place of economy, while it threw such an amount of clerical labour upon the highly-paid kanungo in the field that his position was lowered in the eyes of the villagers, while at the same time his attention was distracted from his chief duty of securing the accuracy of the map.

35. It had always been realized that the Bikrampur area would present exceptional difficulties ; but the difficulties were greater than had been anticipated. They were increased also by the reduction of the period in which effective field work was possible owing to late floods on the one hand which prevented the beginning of work until December and to unusual rain-bursts in April and May on the other hand which greatly delayed its close. The programme was however not only completed, but completed with an admirable care and accuracy, which reflect the greatest credit upon the Settlement Officer and his staff. Bikrampur, which is more than 200 square miles in extent, is practically a continuous suburb full of homesteads and gardens, in which it is rarely possible to see a hundred yards clear in any direction. A field survey thus became exceedingly difficult. The population is very dense, being 2,000 to the square mile, and comprises a large element of the *bhadraloks* or respectable classes whose education was usually sufficient only to be a hindrance and not a help. A certain section of the community displayed considerable hostility to the proceedings, which had its effect on the Settlement Officer's staff and was not only responsible for a "strike" amongst the mufassal clerks, which the Settlement Officer subdued by dismissal, but was also a contributory cause to a "strike" of the kanungos in one circle, concerning which the Settlement Officer remarks :—

> Discontent was, I think, due to the following causes :—
>
> (*i*) the influence of the circle officer (who was subsequently removed) ;
> (*ii*) the influence of the kanungos transferred from Jalpaiguri ;
> (*iii*) the administrative changes and their possible effect on the service ;
> (*iv*) disappointment at lack of promotion ;
> (*v*) the difficulty of the work.

As regards (*ii*), I am glad to say that at the end of the season many of these kanungos had improved very considerably and I have no doubt that they will do useful work. Cause (*v*) was, however, as real a cause as (*i*) and (*ii*). I must admit that the kanungos in Bikrampur had a harder and heavier task than I have seen before and they were undoubtedly overworked The fact that the majority worked without even a murmur is a remarkable proof of their loyalty to their work ; the heaviness of the work can be gauged from the fact that in an area of about 200 square miles the staff were called upon to deal with 3¾ lakhs of plots and 2¾ lakhs of interests. With the present demand for economical work it was, however, necessary to attempt the completion of the programme. The objectionable feature of the discontent was the form which it took, viz., an attempt to force my hand in the middle of the field season. I went down to the circle, interviewed the staff, and was quite prepared to close the work down at once if the discontent appeared to be insuperable. The resignation of two of the kanungos who had come from Jalpaiguri was accepted and had a salutary effect, and the remainder of the staff reconsidered the position with the result that the majority of the staff worked in a meritorious manner till the end of the season. I have since advised the kanungos that a repetition of such conduct can only lead to disaster to their service as a whole, and that they are always at liberty to approach me personally with any grievances that they may have.

The difficulty of preparing a record-of-rights in this area can be guaged from the fact that it contained, on an average, 1,850 plots and nearly 1,400 tenancies in the square mile, whereas in a normal area 1,000 plots and 250 tenancies are

expected. The estates in the area were not only very numerous and very small, but their land was never in one compact block, but scattered in small parcels over several villages and amongst hundreds of similar parcels belonging to other estates. I reproduce an extract from the Settlement Officer's report which summarises the work of his staff in Bikrampur, and I can say, after personal inspection of the area, that he neither exaggerates the difficulty of the work nor the merits of the officers who accomplished it:—

Collectorate registers were not of the slightest assistance; shares, which related to specific portions of an estates, were found recorded through the whole; shikmidars were recorded as sharers in the proprietary right; mutations in many cases were over 50 years overdue. In the actual field nothing was known; landlords were ignorant whether their property was a tenure or an estate, or to which tenure or estate the property belonged; sub-infeudation in a complicated form was frequent, and no documents could be produced of sufficient clearness to solve the problems. In many cases rent had not been paid for generations; and the majority of landlords were absentees as was to be expected in Bikrampur. Kanungos could only proceed by a very careful comparison with the thak maps, and I am glad to say that this was admirably done, despite the fact that one village contained over 1,000 and many villages over 600 chaks; without this comparison the work would have been impossible. In the Arial Bil where the work was expected to be light, the number of interests equalled the number of plots. The litigious nature of the inhabitants exceeded our expectations; annotated editions of the Tenancy Act and copies of High Court rulings were the order of the day, and even cultivators brought them into the field. If the decision in a dispute, however trivial, did not extend over six pages, parties were dissatisfied. In one circle alone no less than 1,218 petitions were filed and the profits from court-fees was very great indeed. The staff is deserving of much congratulation for the admirable tact displayed. Despite the gravest provocation in many cases and frequent attempts, specially in Srinagar, to obstruct and harass the work, bujharat proceeded with perfect smoothness. I have to thank the charge officer, the two circle officers of circles VI and VII, whom I have mentioned above, and the kanungos generally for their great enthusiasm and patient and uncomplaining perseverance which alone enabled us to complete as troublesome a programme as has been undertaken, I think, in any settlement. With the exception that I have previously referred to nobody murmured, but all worked disinterestedly for the credit of the settlement party to which they belonged. I think that the staff as a whole is deserving of thanks and congratulations from higher quarters for the excellent work which they accomplished throughout the season.

36. The area for attestation lay in the north-west of the district and owing to a heavy average of over 600 tenancies in the square mile, some of the camps could not complete their work until August. The Mymensingh practice of completing jauch (final scrutiny) in the objection camps was successfully introduced into Dacca, where the volume and complexity of land tenure tested it most searchingly. Although owing to the late close of the attestation camps the final scrutiny could only be completed in two-thirds of the area, yet it was thoroughly done at the economical cost of Rs. 10 per square mile. The statistical information collected in the attestation camps was very complete, and it included a summary of the history of all important estates from early Muhammadan times, which will be both interesting and valuable. The estates in Dacca are remarkable for the number and minuteness of their aliquot subdivisions. Partitions have been numerous, yet they affect but a fraction of the land which is held nominally in joint tenancy, although the management is distinct. Few tenants in Dacca pay the whole of their rent in a single payment to a single landlord—the great majority pay fractions of it separately to distinct co-sharers and obtain a separate rent receipt from each co-sharer. Many of these fractions are absurdly small, and the system generally is one which gives a great deal of needless harassment and irritation to the tenants. The procedure inherited by the Dacca settlement involved the opening of a separate khatian for each co-sharer landlord, who had a separate collection of rent. Ordinarily this makes for simplicity; but in Dacca it meant heavy expenditure, and it is more than doubtful if the increase in expenditure was counterbalanced by any increase in simplicity. Where the record-of-rights is prepared independently for each village and where estates consist of scattered parcels of land in several villages in each of which the co-sharer proprietors have a different set of shares, a great deal of labour is necessary to secure a uniform record of each estate in all its villages. The Settlement Officer had a very efficient organization for this troublesome

business, which enabled him to secure an equal uniformity at a much smaller cost than in Bakarganj or Faridpur.

The general public took a great interest in the proceedings, and the larger landlords made a complete copy of the record for their own purposes. As the number of objections after draft publication were very few, it appears that the decision of disputes and of vexed questions by the attestation officer was generally accepted as satisfactory.

37. In the attested area the difficulties were generally the same as in the area under field work. There was a considerable amount of illegal enhancement of rent, more particularly where the partition of an estate had been effected, the plea of the landlord being that a new relationship of landlord and tenant had been created. The estate of one notorious group of landlords who hold extensive lands in Manickganj and Nawabganj thanas was found to be in great disorder. Illegal enhancements, illegal evictions and excess collections were secured mainly by the institution of false cases in the civil and criminal courts.

The same abuses were prevalent in the extensive *chars* within a few miles of the thana at Manickganj. In both cases the position would soon improve if the landlord could not secure the assistance of the local police. One curious case of illegal enhancement is noted by the Settlement Officer, whereby the rent-roll of some villages in the estate of a retired Judge of the High Court was increased from Rs. 2,500 to Rs. 6,000 a year. Rent-receipts are generally granted in Dacca in conformity with the law.

The prevalence of the *barga* system and the anomalous position of the *bargadar* deserve some comment. The Settlement Officer remarks:—

> There is not the slightest doubt, however, that the *barga* evil is increasing and extending rapidly and that landlords have discovered in it a method by which to avoid the provision of the Bengal Tenancy Act. If no khatian is opened for the *bargadar*, we fail in our duty of recording his rights as a tenant; if a khatian is opened for him, he is promptly ejected and risks the loss of his means of livelihood. That has been proved clearly in the interval between *bujharat* and *attestation*. I am *fully* convinced that the vast majority of these ejectments is due entirely to the landlord's fear of commutation—a fear for which they have some justification. No attempt has been made to advise the *bargadar* to apply for commutation under section 40, as it would merely result in his prompt ejectment; and previous experience has proved that the section, as it stands, results in the ultimate good of neither landlord nor tenant. Until commutation can be done on an equitable principle, it is, in my opinion, useless to raise a hornet's nest when one is convinced that the result will not be equitable. The remedy appears to me to be in defining clearly the status of the *bargadar* in the Act, amending the methods of commutation and limiting the extension of *bargadar* tenancies to specific classes of land by legislation. Until some alteration in the law is undertaken, I feel that any attempt at pressing commutation in Dacca would be disastrous.

It has been decided by Government that the *bargadar* shall generally only obtain a khatian at attestation where he is found to retain the land. Our statistics in the matter of *bargadars* do not give sufficient information, and they have been revised. It is already clear, however, that tenancies at a produce rent are the joint in the protective armour of the Bengal Tenancy Act, which the smaller landlords have already discovered. Apart from the degradation of the cultivator to a tenant-at-will, they spell wasteful cultivation with its consequence of public loss. So great is the difference in the husbandry that it is possible in a cursory glance over a cultivated plain to distinguish the land held on a *barga* tenancy from the land held on ordinary tenancy by the comparative lightness of the crop. The *barga* system has increased, is increasing, and ought to be diminished.

Midnapore.

Programme:— Field work 955 sq. miles.
Performance:— Ditto, 955 ditto.

38. Settlement operations covering the entire district of Midnapore began in the year under report in continuation of the operations in 1,069 square miles chiefly of Government estates, which were concluded last year. The area

remaining is estimated at 4,133 square miles and has been divided into four blocks, of which the first was taken up in field work in the year under report. The Settlement Officer is Mr. M. C. McAlpin, I.C.S., whose investigations into questions concerning the Santhals in 1908, marked him out as specially fitted to conduct operations in a district where the Santhal population is so large.

The programme was completed, although routine recess work remained to be done in 273 square miles at the end of the year. This will however be speedily disposed of.

The area in which the operations took place is thus described by the Settlement Officer:—

The tract of country dealt with is part of the "jungle mahals", which were ceded by the Muhammadans in 1760 to the East India Company, though it was not till 1767 that the jungle chieftains of the parganas in Binpur were brought under the revenue jurisdiction of the Company in a quasi-military expedition which was sent out to subjugate the jungle mahals generally. Little was known at the time of this country beyond the oft-reiterated statement that it was overrun with thieves, and, being a frontier and in the vicinity of jungle, was subject to many invasions and depradations and the zamindars always fighting amongst themselves. It was wild, mostly stunted *sal* jungle, very sparsely cultivated or populated. Though there has been a considerable amount of reclamation since that time, the country is now largely jungle and waste, particularly in the north-west corner of Binpur bordering on Chota Nagpur. The stigma of its being overrun with thieves has long since been removed, and the country is quietly cultivated by Sonthals, Mahtos, other aboriginal and semi-aboriginal tribes, Sadgopes, etc. Towards the north-east, in Garhbeta thana, the more knowing cultivator of the Hooghly district is encountered. The predominant interest in the whole area, except for the parganas of Lalgarh, Ramgarh and Brahmanbhum and a few villages, is that of the Midnapore Zamindari Company, whose occupation was once, when they were styled Messrs. Watson & Co., the manufacture of Indigo, but whose occupation now is fully explained by their present designation.

39. The Settlement Officer had considerable difficulty with his subordinate staff, as is not unusual when a new party is started. Many of the amins were very raw and had to be taught the rudiments of their business, while 4 out of the 28 Inspectors had to be dismissed. Fortunately, however, the area contained a great deal of jungle and waste (3 8 square miles), which did not require detailed survey and also reduced the number of plots to an average of 716 per square mile. The large number of 291 boundary disputes was filed, but little difficulty was encountered in deciding them. Sixty-seven appeals were filed chiefly by the Midnapore Zamindari Company, of which 47 were rejected and in one only was the original order entirely reversed. In waste lands parties often referred to the *thakbast* maps, and at attestation it is intended to make a close comparison so that *thak* boundaries can be followed in the absence of adverse possession. In thana Binpur, as there had been no revenue survey of the boundaries of villages, villages had to be formed in accordance with the Government Rules under the Bengal Tenancy Act. During khanapuri it was found necessary to make soil classifications after the pattern of Chota Nagpur and the Sonthal Parganas, as "there is every difference between the lowest lying terraced land at the foot of a basin of land, which receives all the water from its slopes and the unfertile barren rock-like soil on the upper slopes." The classification was made with great care and after examination of classifications in other settlements. Nine classes were ultimately adopted—four of terraced *rice* land, three of uplands, one of land adjoining the homestead, and one for land in river beds. The Settlement Officer estimates that 30 per cent. of the classification was checked, but he has obtained the sanction of Government to a special staff for the purpose of a final check at the time of attestation.

40. A good deal of information was obtained as to the rights of cultivators, the history of Sonthali tenancies and the prevalence of produce-rents, which will be of use at the time of attestation. Produce-rents were fairly common, and in Garhbeta thana, which is near the Hooghly district and away from the area occupied by the aboriginals, it is on the increase. In Garhbeta thana also the occupancy right intended for the cultivator is reported to be largely diverted to the middleman. Such matters will be dealt with in more detail after attestation.

The system of land tenure is described by the Settlement Officer as follows:—

Thana Binpur.—This is composed of three parganas—Silda, Lalgarh and Ramgarh. The proprietary right in Silda was acquired in the year 1906 by the Midnapore Zamindari Company. That in Lalgarh and Ramgarh still belongs to the ancient jungle chieftains. In Silda under the company there are several *mukararidars*, etc., from whom it holds various subordinate rights totalling up to 16 annas. Under them again there are the village headmen. Under the zamindars of Lalgarh and Ramgarh there are also village headmen. These headmen are called Mandals. Their original name was *pradhan*, but this seems to have dropped out at some early period. Originally the whole of the country was jungle and waste, and this was gradually reclaimed and brought under cultivation by Santhals, Bhumijes, Mundas and Mahtos, a semi-aboriginal tribe. Each little group, in return for a supply of grain or cattle and for their services when necessary, were given a block of jungle and waste over which they had absolute rights. This supply of grain or cattle was paid through a *pradhan*, or village headman, of the community. The terms on which the zamindar gave the settlement had to be favourable; otherwise the villager would "literally upstick and off to some zamindar whose general character promised better treatment." This is to some extent true to the present day, but only to some extent, as the limits of cultivation are narrowing, and it is difficult to find generous landlords. Moreover, the people are learning their rights. Gradually, as reclamation went on, produce-rent became money-rent, rights ceased to be absolute, rent was charged for increased cultivation, and the Mandal came to make a profit. Notes have been specially prepared on the position of the Mandal, but to give a detailed description would possibly be to prejudice the results of attestation. Suffice it that the Mandals in the Silda pargana received *mukurari* rights from the Receiver, who was appointed by the District Judge for the estate; and in 1910 in a civil case brought by the Company against some 200 Maudals these rights were broken. The position now adopted by the Company is this:—They say the Mandal has no right over any land which is not in his own or the cultivating possession of a raiyat; that neither he nor his raiyats can reclaim without permission; that rents for reclaimed lands must go separately to the Company; and that uplands and homestead lands were not rented and that the raiyats and Mandals could reclaim lands at will within the limits of their villages. These changes are due to the change of the Company's business from indigo to zamindari. The civil case is on appeal to the High Court, and the question of the Mandals and their rents will form a difficulty which will have to be met at attestation. Subsequent to the case a number of the Mandals have executed *kabuliyats* at considerably increased rents. The Registration Office was at first in the Company's cutcherry at Belpahari These rents are in cases increased five and sixfold. At this stage complete statistics are not available, but a comparison of the rents of 208 villages in Circle A shows that the rent-roll has thereby increased from Rs. 4,521 to Rs. 9,937, that is to say, by more than 100 per cent: The Company state that they are justified by the fact that the raiyats' rents taken by the Mandals allowed them an enormous profit. This remains to be seen at attestation. The result is that the relations between the landlords and tenants are considerably strained.

Thana Sabani.—This is composed of the pargana of Bhanjbhum and a portion of Brahmanbhum. Bhanjbhum belongs to the Raja of Narajole under whom the Midnapore Zamindari Company hold the *patni* right. What the Company are now doing in Silda they began to do here 14 years ago on the stoppage of indigo. There is a similar system of village headmen in this area; some of them have successfully resisted the claim of the Company to increase their rents. On the whole, it may be said that the people have been successfully subjugated by the Company not however without trouble which led to an expedition of the Collector and Commissioner through the area in the year 1903. Brahmanbhum belongs to absentee proprietors who leave their tenants very much alone, who thrive accordingly in comparison with their fellow-raiyats in the adjoining parganas.

Thana Gurbheta.—The principal proprietors are a family of Mukharjees under whom the Midnapore Zamindari Company holds a *patni* lease. The Company are, to all intents and purposes, proprietors. Under them are numerous *mukararidars* and *umadars*. The position and origin of the *aimadars* is similar to those of the Mandals; in several cases, however, their position is much stronger, and they hold entire leases of whole villages at a fixed rent or fixed rates of rent. This is probably due to the fact that the villages have passed from the hands of the Santhals, etc., into the hands of a more intelligent people than in the other thanas. The terms of the leases vary.

Another common tenancy to be found here is the *panchaki jama*, of which the rates vary from 1 pice to 4 annas per bigha. So far as it can be ascertained, the origin of the *jama* is as follows:—"During the time of the old Rajas of Bogree it was the custom to make grants of lands to Brahmin and other high castes by way of gifts; but the high castes did not appreciate taking gifts from people of lower caste than themselves and so nominal rents were fixed for these lands." The Company refuses to recognize these *panchakdars*, and this will probably lead to a difficulty at attestation. A species of *utbandi* tenures exists on waste or *dahi* lands. These lands are cultivated haphazard. Their ownership and position change from year to year, and they yield a very poor crop on which the rent is assessed. The Company realizes these rents in waste lands outside the cultivated land of the village which is settled with the Mandal or *aimadar*.

It will be seen from the above that the *mandali* or *zimadari* right originally corresponded to the "*jungle buri*" right defined by section 8 of Regulation VIII of 1793. It is possible that some claims to a raiyati status may be made at attestation following the example of the *chakdars* in the recent Government estate settlement.

Paikan lands.—The above description of tenures would not be complete without a reference to the *paikan* lands. The *paik* figures largely in the history of Midnapore. They were originally given service lands for police purposes or for other purposes, such as drum-beating, etc. Thus there are two classes who can be distinguished as *rangasi*—chaukidars who perform watch and ward, and *bilagasi paiks* who perform no duties of watch and ward. In Salbani and Garhbeta, Government has during the last decade resumed both classes of land, the first under the Chaukidari Act and the second under the Regulations. In Binpur the Settlement Department has been requested to provide the necessary material for resumption purposes and for the formation of unions. This will be done during attestation. There are numerous questions which may arise in connection with this during attestation.

Jungle rights.—Naturally in an area which was once mainly jungle the existence of jungle rights is a matter of some moment to the cultivator. It is proposed to have a special khatian of such rights prepared at attestation following the lines of that prepared in the Dhalbhum settlement in Chota Nagpur. A special note has been prepared on the rights in the Silda pargana in Binpur, and the rights of the raiyats will probably be contested at attestation."

41. The disputes which arose during khanapuri numbered little more than 6 000, owing to the non-contentious character of the aborigines and semi-aborigines. In their decision the special oath on the cow's tail was found curiously effective. They were numerous however in the Silda pargana partly owing to the attempt of the Midnapore Zamindari Company to break down the customary rights of the headmen and partly owing to the eviction of the aboriginals by Bengali money-lenders. It is satisfactory to know that the circle officer was able to obtain the return of the land by compromise in some of the latter class of cases. Two other prevalent subjects of dispute which are described by the Settlement Officer in the following extracts from his report present the unpleasant picture of the use of the courts by an English Company with all the intelligence and the resources of civilization at its back in an attempt to exact its full pound of flesh from a tenantry of docile and primitive aboriginals:—

One dispute raged throughout the whole of the Midnapore Zamindari Company's territory regarding the possession of the wood of trees, (1) on raiyati lands, and (2) on other lands situated in a tenure. Practically the first inkling of the general disputes was a statement made verbally to the Settlement Officer by Mr. Gregson, the General Manager of the Company, that they claimed all the trees without exception in all their parganas. That different customs might exist in different villages or different parganas was poohpoohed on the one-sided ground that the Company could not be run on such lines. The quasi-threats so often employed by this Company that the Privy Council will eventually put things right and the settlement was to be held responsible for all disputes were not kept very far in the background. The manager accordingly asked for a general enquiry. This was refused, as it would prejudice the rights of numerous individuals opposed to the Company. Subsequently, however, a general enquiry was held by each assistant settlement officer in order to ascertain exactly the value of the Company's evidence. The disputes in each village were then taken up separately.

One of the bones of contention between the Mandals and the Midnapore Zamindari Company in the same area is the possession of the waste land of the village. There can be no question that by ancient custom the raiyats were entitled to cultivate such lands rent-free till converted into rice land when the village headman became entitled to its rent, but to record it in the name of the village headman would be to impose a very heavy burden of settlement costs on him besides being probably upset in the civil courts. It is intended therefore to record the waste land in the name of the Midnapore Zamindari Company preserving the rights of the raiyats and headmen in a khatian of miscellaneous rights.

RAJSHAHI.

42. In pursuance of the sanction contained in Government of India, Revenue Department's letter No. 998—306-2, dated the 16th September 1910, the settlement operations in Rajshahi should have begun in the year under report, but they were for various reasons postponed. Mr. W. H. Nelson, I.C.S. was appointed Settlement Officer on the 6th September 1912, and the

preparations for the forthcoming season are complete. The area to be dealt with is the Natore subdivision in the east of the district. It is not anticipated that it will present any exceptional difficulties, but it is lowlying and unhealthy.

Birbhum (Rampur Hât).

Programme—Attestation, 2½ sq. miles ...	Fair copy, 124 sq. miles.	Publication, 137 sq. miles.
Performance—Attestation, 2½ sq. miles ...	Fair copy, 122 sq. miles.	Publication, 135 sq. miles.

43. These operations began in the year 1910 in the Sonthali villages in the Rampur Hât subdivision. The area embraced by them is 137 square miles and the Settlement Officer is Mr. P. W. Robertson. The work accomplished during the year was very considerable, but the period of the operations had to be extended to enable rents to be settled for Sonthali tenants under section 112, Bengal Tenancy Act.

44. The programme of attestation in the Bhadrapur villages, although small, proved exceedingly difficult. There were many landlords without papers, and the land of each estate had to be pointed out by the tenants. There was naturally a good deal of intrigue and, although prepared with the greatest patience, the record must necessarily be liable to error.

The main work of the year was the recovery of costs and the disposal of cases under sections 105 and 106 subsequent to final publication. For recovery the total *demand* was Rs. 50,236, of which all except Rs. 5,413 was collected. The balance is expected to be collected without difficulty, except what is payable by a large number of non-resident rent-free holders. The cases under section 105 which came to trial were filed in respect of Bengali and not Sonthal tenants, and they were more numerous than was expected. Fortunately however almost all of the landlords and tenants proved extremely reasonable and accepted the terms of compromise suggested by the Settlement Officer. In the application of the terms of compromise, the Settlement Officer gave a careful consideration to the case of each individual tenant. The total enhancement allowed is 23·4 per cent. on a previous rental of Rs. 35,487, but as the Settlement Officer estimates the expansion of cultivation at 25 per cent. since the existing rents were imposed, the enhancement largely partakes of the character of an adjustment. The tenants were generally content and their relations with their landlords remain cordial.

A large amount of commutation of produce-rents to cash-rents under section 40 was also done chiefly for Sonthali raiyats.

Most of the 549 cases under section 106 were filed in error owing to a misapprehension of the scope of the section by the local Bar. One hundred and twenty were however for a declaration that a rent which had been pronounced illegal at attestation was in fact legally payable. The cases were decided by compromise after much consideration. By the terms of the compromise the landlord won his case, but undertook not to enhance the rents further for 15 years.

45. The settlement of the rents of the Sonthali tenants under section 112, Bengal Tenancy Act, was sanctioned by the Governor-General in Council and ordered in notification No. 2416 L.R., dated the 27th of August 1912. The landlords, who are generally on good terms with their Bengali tenants, appear to regard the Sonthali as lawful prey. It is unnecessary to describe in detail here the facts upon which the application of section 112, Bengal Tenancy Act, was requested. By that section all rents are revised by the revenue officer who has power to increase or reduce existing rents until they appear to him fair and equitable. The work will be taken up in the cold weather, but rent schedules have been prepared in advance for all the tenants concerned who number 5,142.

46. It is anticipated that the operations in this settlement will be concluded by August 1913.

GENERAL.

47. The severity of inspection in cadastral survey and khanapuri in the different settlements is compared in the following statement:—

District.	Partal of Cadastral Survey.			Inspection of Khanapuri.
	Number of linear miles of partal in each square mile.			
	Personal—			
	By whole staff.	By officers only.	Independent.	Number of plots in every hundred inspected.
Mymensingh ...	2·3	·3	Not in force	14
Dacca ...	3·4	Not reported.		
Midnapore ...	2·3	2½	1·3	19

In Midnapore the figure of partal is not really an adequate index to the severity of inspection as so much of the area was jungle. In Mymensingh and Dacca khanapuri inspection is not of the same importance as in Midnapore as the kanungo afterwards visits every field in bujharat. The inspection has been sufficient in all settlements.

48. A statement of expenditure in all settlements and of cost rates for the different branches of work will be found in Appendix VII. No considerable variation from estimated expenditure as contained in the latest estimates is reported. The case of Rampur Hât, where proceedings under section 112 involved new expenditure, has already been reported to Government.

I examine the cost rates of the different settlements so far as is possible below, using in default of any modern prescribed scale for the purpose of comparison the standard scale proposed in my No. 120-53J, dated 16th March 1912:—

FIELD WORK.

District.	Average number per square mile.		Rate per square mile of—					Remarks.
	Plots.	Tenancies.	Cadastral survey.	Khanapuri.	Preliminary office work.	Total.	Field bujharat.	
			Rs.	Rs.	Rs.	Rs.	Rs.	
Standard scale	1,000	250	110	37	18	165	86	
Mymensingh	1,084	300	104	37	17	158	85	Unoccupied waste has been deducted in calculating these figures.
Dacca ...	1,210	617	91	58	17	166	96	
Midnapore ...	1,2[illegible]3	Not reported	83	57	35	175	Not done.	

As the average in Mymensingh of plots and tenancies was greater than the normal, the expenditure must be considered economical, while in view of

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the enormous number of plots and tenancies in Dacca, the Settlement Officer should be congratulated upon completing his work at so low a rate.

ATTESTATION.

	Standard scale.		Faridpur.		Jalpaiguri.		Mymensingh.		Dacca.	
	R.	A.	R.	A.	R.	A.	R.	A.	R.	A.
Attestation—										
Per square mile	66	0	.....		43	0	42	0	115	0
Per 100 tenancies	25	0	.....		13	4	24	0	18	10
Objections under section 103A—										
Per square mile	27	0	Not given		Not done		17	0	19	0
Per case ...	1	13	3	12			1	10	1	8

The high cost rate of attestation in Dacca was not excessive when the number of tenancies is considered. The objections in Faridpur were scattered and difficult; but I doubt if sufficient attention is paid to early disposal of establishment, when work is closed. The work in Jalpaiguri was not particularly easy and the low rate is very satisfactory.

FAIR COPY.

Item.	Standard scale.		Faridpur.		Jalpaiguri.	Mymensingh		Dacca.
	Rs.	A.	Rs.	A.	Rs.	Rs.	A.	Rs.
Jamch, per square mile ...	20	0	24	0	23	14	0	10
Statistics ,, ,, ...	10	0	11	0	14	7	0	2
16-inch maps ,, ,, ...	6	0	7	0	34	8	0	2
Printing per 100 khatians ...	21	10	14	8	Not begun.	15	9	Not begun.

An examination of the figures in Statement VII will show that in every district there has been a great improvement on the rates of previous years. Considering the great difficulty of the work in Faridpur, the rates are really moderate. In Jalpaiguri the climate is chiefly responsible for high rates and in mapping the amount done was two small for economy to be possible.

49. In order to bring the whole expenditure in each settlement under review, it is necessary to examine the amounts debited to supervision and to contingencies. For this purpose an elaborate scale was prepared and affixed as Appendix G to accompany the standard rate proposed in the letter to which reference has already been made. Adopting this scale as the basis of comparison, expenditure in the past year and up to date in all the settlements may be summarised as follows:—

	SUPERVISION.				CONTINGENCIES AND SUPPLIES.			
	IN YEAR UNDER REPORT.		UP TO DATE.		IN YEAR UNDER REPORT.		UP TO DATE.	
	Allowed by standard rate.	Actual.	Allowed by standard rate.	Actual.	Allowed by standard rate.	Actual.	Allowed by standard rate.	Actual.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Faridpur ...	37,470	33,106	4,40,000	3,23,630	13,440	23,112	2,19,500	4,84,268
Jalpaiguri ...	32,780	39,048	2,33,900	2,25,022	9,400	10,189	1,44,320	1,46,946
Mymensingh	1,37,900	32,154	5,07,700	3,62,364	68,430	38,964	3,54,600	2,24,499
Dacca ...	1,04,650	65,285	1,87,400	1,29,550	32,530	21,352	92,600	84,057
Midnapore ...	1,07,040	36,882	1,07,040	36,882	76,600	33,648	76,800	33,648

The actual expenditure on supervision up to date in each settlement is below the standard scale because the staff prescribed by Government upon which the scale was based has not been granted to any of the settlements. In Midnapore also the absence of kanungos involved a saving of Rs. 36,000 on this account. Expenditure on contingencies and supplies in the year under report, has been satisfactory on the whole. The excessive figures of previous years in Faridpur have already been separately explained. In the year under report, they were chiefly due to the press paper and to bookbinding; but there is need of the most careful economy. In Midnapore a lump sum of Rs. 30,000 on account of buildings has been debited in accordance with the orders of the Government of India.

50. I have gone into details of expenditure at this great length, because I understand that it is the desire of Government that in the interests of economy expenditure should be thoroughly reviewed at the end of each year. The standard scale which has been proposed and with which comparison has been made is of no value, unless it can be utilised to afford an indication whether expenditure as a whole has exceeded the scale both in the year under report and from the beginning in each of the district operations. This indication is supplied below in a table which shows for each settlement the variation from the standard scale in respect of all expenditure incurred in the year under report:—

[*Per square mile.*]

Expenditure.		Faridpur.	Jalpaiguri.	Mymensingh.	Dacca.	Midnapore.
		Rs.	Rs.	Rs.	Rs.	Rs.
On the different branches of work.	Standard scale	456	967	470	380	165
	Actual ...	587	371	396	410	176
On supervision ...	Standard scale	161	161	141	161	161
	Actual ...	134	190	96	100	55
On contingencies and supplies	Standard scale	77	77	77	77	77
	Actual ...	132	84	42	51	84
Total ...	Standard scale	694	605	708	618	403
	Actual ...	853	645	533	561	314
Percentage of actual expenditure on the standard scale.		123 %	107 %	75 %	90 %	78 %

To give similar figures of the expenditure up to date in each settlement would be tedious; but the general result of a critical examination may be summarised conveniently in the following way. The standard scale contemplates a settlement expenditure of Rs. 710 per square mile, whereas the actual expenditure in each district in the year under report is equivalent to a total expenditure per square mile of—

Rs.		Rs.
873 in Faridpur,		533 in Mymensingh,
757 in Jalpaiguri,		645 in Dacca,

and from the beginning an expenditure of—

Rs.		Rs.
986 in Faridpur,		574 in Mymensingh,
735 in Jalpaiguri,		703 in Dacca.

It will be observed that the year's working shows a substantial economy in all the settlements except Jalpaiguri and in that settlement the excess is largely due to the employment of highly paid officers on supervision. Economies however in the establishment at head-quarters are possible and should be obtained. Considering the exceptional difficulty of the work, the low cost rate in Dacca reflects considerable credit on the Settlement officer, while Mymensingh is still a model settlement in respect of economy. To explain the reasons of the high rate of expenditure in Faridpur would be merely to repeat a thrice-told tale. In Midnapore, where the method of work

is different, the standard scale proposed for Eastern Bengal would permit an expenditure of Rs. 582 per square mile. The actual expenditure represents a rate of Rs. 457 per square mile on the occupied area.

51. Minor operations, which are supervised by the district officers and financed either by deposits made by private parties or from provincial revenues, were going on in the following districts:—

Bakarganj.	Malda.	Hooghly.
Noakhali.	Rajshahi.	Jessore.
Tippera.	Pabna.	Khulna.
Dinajpur.	Bogra.	

Other operations of this nature were in progress in districts of the Western Bengal divisions, but were not in the year under my control.

In many of these districts the work in hand is very inconsiderable, and it is unnecessary to review it in any detail.

52. In Malda no progress was made in the two estates mentioned in previous reports as notified for revision of land revenue. The land of one lies entirely within the Province of Bihar and Orissa and a proposal of transfer has been made. In the other, Haripur, the dispute about the boundaries has at last been settled by compromise, and the proceedings will be pushed to completion in the forthcoming year. No final report is pending from this district.

Malda.

53. In Pabna the completion of seven small private estates was anticipated. In five apportionment statements and recovery of costs were pending and in all final reports were to be submitted. Four of the apportionment statements were submitted and the fifth is reported as under issue. It was delayed by the preferment of 15 appeals under sections 105 and 106 to the Special Judge. These appeals have not yet been decided. Recovery has been completed in three out of the four estates, but in the fourth Government orders were received too recently for any recovery to be made. In this estate (Salgaria) 103 suits were filed under section 106 to contest rent-free claims, but they were transferred to the civil courts for disposal. Final reports have been submitted in five out of the seven estates, and in the other two have been prepared and are merely delayed for the technical completion of the operations.

Pabna.

54. In Bogra 120 cases under section 105, Bengal Tenancy Act, in Fulbari-Ramchandrapur were pending for disposal. These were disposed of. Three hundred and twenty-nine appeals, which were filed to the Special Judge in these villages, were also decided during the year, but the result had not been communicated to the Collector. The accounts of the estate have been adjusted and the final report on the operations submitted during the year.

Bogra.

55. In Dinajpur the final report of estate Balubhara was submitted and the accounts adjusted. In estate Jhargaon the large number of 1,747 cases under section 105 and 550 cases under section 106, Bengal Tenancy Act, were filed. There was some delay in posting an officer for their disposal, and only 723 of the former and 142 of the latter have been decided. It is expected that the disposal of all the cases will take six more months when the operations can be closed. The enquiry into the expenditure in this district mentioned in last year's report (Eastern Bengal and Assam) has been completed and the result communicated to the Board of Revenue. There was no doubt a regrettable extravagance, but as it occurred some time previously no action was necessary or possible.

Dinajpur.

56. In Tippera the programme was very small, consisting of only 1 square mile in field work, 2 in attestation and 7 in final publication. It was completed, except for the fact that the survey of one sheet was so bad that it had to be cancelled. Of the eight estates measuring altogether only 1 square mile, which were in the programme for revision of land revenue, six were completed. No final reports have as yet been submitted. The expenditure in this district has been unnecessarily heavy, but as distribution has not been made in the prescribed form, it is impossible to analyse it except by inspection of the registers.

Tippera.

57. In Rajshahi proceedings were incomplete in one private estate and in six temporarily-settled estates under revision of land revenue. In five of the latter a final report has been submitted, while in the sixth proceedings are stayed owing to a civil suit concerning the rights of the lessee. In the private estate Tappa Kusambi final publication had taken place last year and 93 cases under section 106, Bengal Tenancy Act, were pending for disposal. The High Court transferred 19 of these cases to the civil court, where they were decided in favour of the landlords and are now pending on appeal. The ultimate decision in respect of these cases will govern the decision in respect of all the other cases in the file. These petty operations will now merge in the district operations.

Rajshahi.

58. In Bakarganj assessment of alluvion under Act IX of 1847 continued, while 13 estates with an area of 21 square miles became due for revision of land revenue. There is a special diara officer, Babu Hara Kishore Biswas, Deputy Collector, who is employed on the assessment of alluvion. His enquiries have covered almost the whole district and special comparative maps have been prepared for the Shahabazpur river and the Galachipa archipelago, which would otherwise have presented great difficulties. Proceedings of this nature are always accompanied by a shower of objections which require a long time in disposal. As the last diara survey took place nearly 30 years ago, they cover unfamiliar ground, and their disposal has, I am afraid, been very troublesome to the four Collectors who held charge of the district during the year under report. The proceedings of the local revenue authorities are submitted to the Board of Revenue for final orders. During the year under report 17 proceedings involving a proposed revenue of Rs. 5,479 have been submitted to the Board of Revenue, but final orders have not been obtained: 28 more have been completed by the Collector, while procedings in a further 139 have been instituted.

Bakarganj. (a) Diara.

In the 13 estates in which the revenue demand was to be readjusted a record-of-rights had already been prepared either in the district operations or previously. The revision of this record turned out to be easier than was expected. The draft rent-roll was published in 18 out of 21 square miles, and it is expected that the proceedings will shortly be concluded. The cost of revising the record was Rs 242 per square mile, inclusive of the pay of the kanungos employed.

(b) Revision of land revenue.

59. In Jessore and Khulna a record-of-rights is being prepared for the Mokimpur Wards' Estate, measuring 50 square miles, of which 25 are in Jessore and 25 in Khulna. There is a special Settlement Officer, Babu Akshoy Kumar Mukharji. The final publication of the Jessore portion was completed in the year under report, and in the Khulna portion the programme of field work was accomplished. The chief difficulty was the apathy of the tenants which amounted at one time to obstruction. This was due to an apprehension, which may no doubt be justified, that the ultimate object of the proceedings is an enhancement of their rents. The proceedings were, however, sanctioned in the interests of good management. It will take two years to complete the operations in this estate.

Mokimpur.

60. In Noakhali there is a big programme and a special officer, Mr. Saiyid Altaf Ali, in charge of the operations. Altogether work was proceeding in 45 estates covering 157 square miles, of which 140 are temporarily-settled and 17 permanently-settled. In 53 square miles of this area only traverse survey was to be made. Traverse was done in 94 square miles altogether, but this was exceptional as next season's programme was traversed ahead. The traverse was not under professional control, as the estates are extremely scattered and the cost of a professional party would be prohibitive. In field work the full programme of 52 square miles was completed, but nearly half of the attestation programme remained pending. This was however finished soon after the close of the year. The bargadagi system of survey was introduced into Char Jubilee, and colonists were selected amongst khas mahal tenants, who were *bond fide* cultivators in poor circumstances. In fair copy and publication, including a heavy crop of case work, the programme was completed. There

Noakhali.

was a very satisfactory reduction in the cost of the proceedings due to the efficient management of the special officer, but field inspection on the other hand both by that officer and his staff was insufficient. One revenue officer in particular failed lamentably in this respect.

The work presented no difficulties in the temporarily-settled estates, but in pargana Dandra sub-infeudation was excessive, boundaries were difficult to locate, and disputes were frequent. The revision of revenue, which was completed in ten estates during the year, resulted in an increase of Rs. 12,874 in the Government revenue. Recovery operations in Nij Sandwip were practically completed, and the final report was submitted during the year. Final reports of three other estates were also submitted, but eight more are still pending.

Hooghly.

61. In Hooghly there is a miscellaneous programme and a special settlement Officer, Babu Mahendra Nath Gupta. The special office was formed in 1901-05, and the total area dealt with has been 47 square miles besides 60 estates which are not under my control. Applications are coming in in large numbers for further operations in this district, but it has been decided to close the special office and to postpone any further work to the period when a record-of-rights is prepared for the district as a whole. At the end of the year under report final publication was not complete in 6 square miles, but was expected shortly to take place. Of the heavy programme of case work the greater part was finished. As in previous years, the work was little more than a prolonged and comprehensive civil suit. In most of the estates the land which belonged to the estate had first to be discovered by the Settlement Officer and, when discovered, it was claimed by many other proprietors whose claims had to be considered. Usually it was necessary both to find tenants for each landlord and landlords for each tenant, and then, in the case of most tenants, to ascertain whether rent was or was not payable and, if payable, what it was or should be and whether it was fixed or variable. Summary decisions were impossible, as the parties appealed freely for support to the case law of a century. It is unnecessary to anticipate the final report on these operations by any reference to the points at issue. Experience in these 47 square miles, which are scattered over the district, has shown that in much of the Hooghly district chaos presides over the connection of the landholders with their lands.

There were 28 estates for revision of land revenue in the file and in 27 the rent-roll has been confirmed. In 13 estates Government were auction-purchasers under the revenue sale law, and the tenants had first to be discovered before their rents could be settled. The special officer failed to locate the land in one small estate. In this connection it may be added that the form for the patta-kabuliyat of roadside lands on the Grand Trunk Road has not as yet been sanctioned by the Board of Revenue.

Fair rents were settled on compromise under section 109 (*c*) of the Bengal Tenancy Act (West Bengal) in the Ward's Estate of Boinchee Trust, by which an existing rental of Rs. 6,734 was increased to Rs. 7,857.

PART II.

Effect of provincial redistribution.

62. Turning to matters of general interest to the Department, the outstanding event in the year was naturally the redistribution of provincial boundaries, which came into force on the 1st April. As the year wore on, it became painfully evident that for the time being the work of the Director of the Department had been thereby far more than doubled. Different powers were wielded in the two parts of the Province, different sanctions applied while the mind was in a whirl between two different Acts, two sets of Government Rules, two sets of Manuals and two procedures. No progress was made during the year in the attainment of a *uniform* system, nor does it appear likely that uniformity will be secured at an early date. There is probably no department of Government in which the procedure of the two old

Provinces had diverged so widely. Where divergencies have been sanctioned with all solemnity by order of Government, an order of Government is necessary to get rid of them. It may be imagined therefore that the evolution of a single set of rules from two rival sets—one of which is embodied in two volumes covering 620 printed pages is not a holiday task. In the meantime formal business of a routine nature has disappeared. Alternative courses are possible in every business and, where there are alternatives, there must be a choice, which implies discretion, the destroyer of routine.

Expenditure and accounts.

63. The report called for by the Eastern Bengal and Assam Government (*vide* order No. 60, dated 28th November 1911), in connection with past and future expenditure on settlement operations in Eastern Bengal, was submitted on 21st August 1912. It suggested reforms tending to simplification in accounts; but as orders have not yet been passed upon it, it is unnecessary to discuss the proposals in detail.

Similar proposals were made in connection with the expenditure in minor settlements, where the system of accounts is at present dilatory and defective. A further proposal was made in connection with the cost of forms and stationery and the cost of binding the volume containing the record-of-rights. Orders were not received on any of these proposals during the year.

These proposals were the result of the close scrutiny which settlement expenditure and estimates received in all settlements during the year. In other respects this scrutiny proved very salutary. It constrained settlement officers to consider their expenditure as a whole, comparing all branches of their expenditure in the year with a common standard and examining the total expenditure of the year in relation to the estimated expenditure in the entire district. At the same time it led to the evolution of formulæ, by which the equivalent cost of the settlement as a whole could be guaged from the cost of a year's work or of the work completed from the beginning. Previous attempts to this end had proved abortive and although it may be some time before official sanction can be obtained for the formulæ, the settlement officers have already adopted them as a useful key to the financial maze. Chaos still reigns in the accounts of petty operations, so that it has proved impossible to compare their expenditure with a common standard. In the forthcoming year the methods, which have been used in the larger operations, will be applied to the smaller and expenditure will be subjected in the annual report to the same analysis.

Maintenance.

64. No progress was made with a scheme for the maintenance of the record-of-rights in Eastern Bengal districts. It is understood that maintenance has been discarded as impracticable.

Final Reports.

65. The Bakarganj Final Report is in the press. The Midnapore Final Report, which was referred to last year as in the press, was only received from the press after the close of the year.

Statistical compilations.

66. An attempt has been made with great labour to prepare complete lists of all areas in the Province for which a record-of-rights has been prepared and of all areas which are under temporary settlement. I am afraid that the attempt threw additional work upon the district officers, whose cordial co operation was very welcome. On completion the *lists* should be of great value to the administration, as the great difficulty experienced in their compilation has proved that the valuable information which they will contain was not previously available.

Jurisdiction.

67. The boundary between the districts of Noakhali and Faridpur on the one hand and the district of Bakarganj on the other, which was of a somewhat uncertain character, was placed on a satisfactory footing by the issue of Government order No. 662 R.-1, dated the 25th March 1912. In accordance with this the main stream of the Meghna and Shahabazpur rivers was declared to be the boundary between Bakarganj and Noakhali, while the main stream of the Nayabhangani and the Meghna rivers, of the Alimabad khal and of the Arialkhan river was made the common boundary between Bakarganj and Faridpur. During the year seven proposals were made for alterations in

thana maps and lists resulting in the issue of five notifications. The misapprehension regarding the boundary between Rangpur and Goalpara districts was removed after some prolonged correspondence without recourse to any fresh notification.

Training of munsifs.

68. The four munsifs who joined the Settlement Department in October 1910 reverted to their general duty in May 1912 on completion of their training. It is hoped that the deputation will prove useful to them in the discharge of their judicial work. In the beginning of the field season of the year 1911-12 six more munsifs were deputed for training. Unfortunately two of them have already left the Settlement Department on account of a breakdown in health.

Training of junior officers.

69. The training camp for junior officers in the Executive Services was attended by 9 Civilians, 9 Deputy Collectors, 15 Sub-Deputy Collectors, 8 Assistant and Deputy Superintendents of Police. It has been proposed by the Board of Revenue to send wards in future to the training camp, while the Inspector-General of Police proposes to send a few Sub-Inspectors of Police experimentally for training in settlement procedure. The training camp was located at Baiganbari in December, and bujharat was done by pairs of officers throughout the Tangail subdivision in January and February. All the officers spent some time in an attestation camp. The camp was as usual very successful and the officers were full of keenness.

Training of kanungos.

70. A class was held in Dacca in August and September for the training of kanungos. Forty-four attended the class and most of them were afterwards offered appointments. The candidates nominated by the Collectors were better men than those of last year, but a proportion of them was still unsuitable for the duties with which it will be entrusted.

Prospects of kanungos.

71. A change of the most serious import to the Department was embodied in the rules issued in notification No. 3071 A.D., dated 28th August 1912, for the recruitment of the Provincial and Subordinate Executive Services. In Eastern Bengal 12 kanungos were made Sub-Deputy Collectors in 1910 and 12 more in 1911. The new rules offer only two posts, for which officers of five other departments on the revenue side are also eligible, and in 1912 only 1 kanungo as a result received promotion. The large number of promotions made in Eastern Bengal was no doubt accidental; but so complete a change must necessarily affect the spirit of the kanungos now in employment as well as the quality of recruits. The arduous work of a kanungo in the field necessarily involves the employment of young men, while their educational attainments are in most cases not inferior to those of the ordinary recruit to the Subordinate Executive Service. As kanungos they attain the highest posts and pay open to them after six or eight years' service, and at the age of 30 it is clearly impossible to keep a body of such men contented if they have then nothing left to hope for. If promotion to another service is impossible, it will be necessary to reconsider the scale of pay and the conditions of service on which they should be employed in the different settlements.

Maintenance of boundary marks.

72. Appendix VIII indicates the results of inspection which was fairly adequate. Of the number of boundary marks erected 69 per cent. were visited. Nearly 90 per cent. were in fair condition, 3 per cent. in a damaged condition, and 7 per cent. missing. Under Government order No. 1451 P.—R., dated the 20th September 1911, a fund was created for the maintenance of boundary marks. During the months from April to September 1912 the receipts amounted to Rs. 1,083 while the estimated expenditure made up the figure of Rs. 535-4.

Utilization of settlement records.

73. The extracts received from the Collectors' Land Revenue Administration Reports for 1911-12 show that the survey and settlement records are freely utilized by the criminal and civil courts as well by revenue officers in various branches of the collectorate work, such as partition, land acquisition, cess revaluation,

land registration, public demands recovery, land improvement loans and management of Government and Wards' estates. It is said that Sub-Registrars insist on plot numbers being inserted in the documents before they are registered and that Sub-Inspectors of Police also use the cadastral maps in preparing sketches of the scenes of crime. It is apparent that there is a growing tendency to utilize the maps and records whenever occasion arises, although it is doubtful whether even yet they are utilized on half the occasions on which they might be of use.

Tours.

74. As usual a large portion of the year was spent by the different Directors on tour. Mr. McPherson was confined to Calcutta by the Orissa Tenancy Bill discussions, and was only able to tour 22 days before the 1st of April. I was on tour 77 days in the Eastern Bengal districts before the 1st of April, and 92 days from that date until the end of the year. All the principal settlements were visited twice, except Midnapore, while all except two of the districts in which minor operations were in progress were visited at least once. In the province as now constituted there are few amenities for a touring officer, who finds that uncomfortable railway and steamer connections impose a great strain.

Settlement staff.

75. The settlement staff in the Province consisted of 10 Civilians, 32 Deputy Collectors, 11 Munsiffs, 45 Sub-Deputy Collectors, 7 "outsider" assistant settlement officers, 11 revenue officers and 184 kanungos. Mr. McAlpin organized the Midnapore settlement with success and brought a large sympathy to bear upon the problems connected with the present and the future of aboriginal cultivators. Mr. Sachse's energy was as inexhaustible as ever and he has secured genuine field work from all ranks of his subordinates. He deserves a special tribute of thanks for the excellent spirit in which the training camp for junior officers is conducted. Mr. Nelson carried on the work in Mymensingh with ability during Mr. Sachse's absence. As in former years, the resource and experience of Khan Bahadur Abdul Momin were of the greatest assistance in the Mymensingh settlement. Mr. Milligan had a very troublesome task in Jalpaiguri and he brought his work a long step towards completion. Mr. Ascoli conducted the difficult operations in Dacca with "admirable organization" as described by the Hon'ble Mr. Lyon after a visit of inspection. In Faridpur the Settlement Officer had a heavy burden of work to which Mr. Prance addressed himself with great devotion. When he took leave, Mr. Thomson exceeded anticipation in the success with which he disposed of unfamiliar work. In the smaller operations, Mr. P. M. Robertson and Babu Mahendra Nath Gupta deserve notice and commendation. The other officers mentioned for good work during the year are:—

Deputy Collectors.

Babu Karali Charan Gangali.
Maulvi Saiyid Altaf Ali.
" A. K. Kabiruddin Ahmad.
" Saiyid Muaz-zam-ud-din Husain.
Babu Gyanendra Nath Ray.
Babu Shital Chandra Chattarji.
" Hara Kishor Biswas.
Maulvi Saiyid Abdul Latif.
Babu Kali Mohan Sen.
Mr. A. J. Harris.

Munsif.

Babu Madhu Sudan Roy.

Sub-Deputy Collectors.

Babu Akshay Kumar Mukharji.
" Sata Mayu Mukharji.
" Ramesh Chandra Sen.
" Srimohan Das Gupta.
" Brajendra Nath Das Gupta.
Babu Chinta Haran Das Gupta.
" Kalipada Maitra.
" Raicharan Pal.
" Abani Kumar Sen.
" Hira Lal Sen.
Babu Khitinath Ghose.

L'envoi.

76. In conclusion I desire to convey the thanks of the Department to the Directors of Surveys in Bengal and in Eastern Bengal and Assam for the assistance which in this as in former years they have extended both to the settlement officers and to myself. I also take this opportunity of thanking the Commissioners and the district officers, in whose charges settlement work has been proceeding, for the co-operation and sympathy which they have always extended in abundant measure to the work of the Department. To them a centralized department must always be a nuisance and, owing to the change of Government, I am painfully conscious that this Department has been in the year under report more of a nuisance than ever.

I have the honour to be,

SIR,

Your most obedient servant,

J. C. JACK,

Director of Land Records, Bengal.

APPENDIX I.

(All figures are in square miles.)

PROGRESS OF SURVEY AND THE PREPARATION OF A RECORD-OF-RIGHTS IN THE PROVINCE.

A.—Summary.

NAME OF DISTRICT.	Area (exclusive large river.	RESERVED FORESTS.		UNSETTLED WASTE AT THE DISPOSAL OF GOVERNMENT.		SETTLED AREA TO WHICH THE BENGAL TENANCY ACT HAS NOT BEEN EXTENDED.		SETTLED AREA TO WHICH THE BENGAL TENANCY ACT HAS BEEN EXTENDED.			
									Area in which a record-of-rights—		
		Area.	Scale and date of survey.	Area.	Scale and date of survey.	Area.	Date of cadastral survey under other Acts.	Total.	Has been prepared.	Is in course of preparation.	Has not been prepared.
1	2	3	4	5	6	7	8	9	10	11	12
Burdwan	2,078	...	...	...	...	...	...	2,078	75	15	2,538
Birbhum	1,749	...	...	...	...	...	...	1,749	207	2	1,540
Bankura	2,621	...	...	...	...	...	...	2,621	51	...	2,570
Midnapore ...	5,467	...	...	...	...	...	...	5,467	1,069	955	3,383
Hooghly	1,723	...	...	...	...	...	...	1,723	47	...	1,676
24-Parganas	4,344	1,758	...	1,191	...	...	...	1,815	172	21	1,722
Calcutta	8	...	...	...	...	8	1911, in respect of 4 square miles.	...	...	...	...
Nadia	2,725	...	...	...	...	...	...	2,723	45	9	2,671
Murshidabad	2,014	...	...	...	...	1	...	2,015	157	4	1,853
Jessore	2,925	...	...	...	...	...	...	2,925	74	4	2,846
Khulna	4,765	2,389	...	...	...	...	...	2,376	215	...	2,456
Dacca	2,720	...	...	...	...	...	...	2,720	29	+2,661	666
Mymensingh	6,356	...	...	...	...	...	...	6,343	272	4,071	1,913
Faridpur	2,472	...	...	...	...	...	...	2,472	332	2,140	...
Bakarganj	3,648	...	...	...	...	...	...	3,648	3,606	...	42
Chittagong	2,492	564	Surveyed in outlines only 4" scale in 1868-1868.	486	16"=1 mile 1868-1868.	...	...	1,442	1,374	...	68
Noakhali	1,649	...	...	...	...	...	...	1,649	547	40	1,062
Tippera	2,489	...	...	...	...	...	...	2,489	983	149	1,371
Saidabad	2,616	...	...	...	...	...	...	2,616	68	860	1,688
Dinajpur	4,132	...	...	...	...	...	...	4,132	317	...	3,815
Jalpaiguri	3,646	505	4" scale; season 1907-10.	122	4"=scale; season 1907-10.	438	4" scale; season 1908-10.	1,981	...	1,981	...
Rangpur	4,990	...	...	...	...	...	...	4,990	143	...	3,947
Bogra	1,359	...	...	...	...	...	...	1,359	53	...	1,306
Pabna	1,839	...	...	...	...	...	...	1,839	68	298	1,473
Malda	1,535	...	...	...	...	...	...	1,535	88	...	1,744
Darjeeling	1,164	436	1 mile=4" 1905.	22	...	705	1878—1880 Kalimpong 1905-08. Siliguri, 1897-98. West Tista, 1903-07. Under Act V of 1876.	...	...	...	...
Total ...	73,399	5,353	...	1,821	...	1 152	...	68,093	10,206	13,608	43,196

NOTE.—The figures in this statement are as accurate as the information available permits.

Name of District.	SETTLED AREA TO WHICH BENGAL TENANCY ACT HAS NOT BEEN EXTENDED.						SETTLED AREA TO WHICH BENGAL					
	Revenue-paying.				Revenue-free.		Revenue-paying.					
	Permanently-settled.		Temporarily-settled.		Private properties.	Public lands.	Permanently-settled.			Temporarily		
										Private Estates.		
	Area.	Revenue.	Area.	Revenue.	Area.	Area.	Area.	Revenue.	Area for which record-of-rights has been prepared.	Area.	Revenue.	Area for which record-of-rights has been prepared.
1	2	3	4	5	6	7	8	9	10	11	12	13
		Rs.		Rs.				Rs			Rs.	
Burdwan	...	...	...	...	...	...	2,825	36,33,590	75	8	8,653	...
Birbhum	...	...	...	...	...	...	1,797	19,06,991	207	...	...	...
Bankura	...	...	...	...	...	...	2,601	4,86,156	47	...	...	...
Midnapore...	...	...	...	...	...	...	4,655	15,81,964	408	388	5,73,640	385
Hooghly	...	...	...	...	...	...	1,625	13,07,251	43	10	16,891	...
24-Parganas	...	...	...	...	...	...	1,918	13,01,070	49	304	3,80,932	...
Calcutta	4	16,146	...	...	1.	3	...	...	...	...	...	...
Nadia	...	...	...	...	...	...	2,576	8,19,891	14	76	66,924	16
Murshidabad	...	...	...	...	...	...	1,906	16,12,684	92	90	70 437	21
Jessore	...	...	...	...	...	...	2,868	9,37,528	75	3	4,111	...
Khulna	...	...	...	...	...	...	2,497	6,10,782	103	110	59,309	107
Dacca	Figures are not supplied by local officers.						...	...	...	...	...	...
Mymensingh	...	...	...	...	...	...	6,135	7,62,139	354	182	53,302	18
Faridpur	...	...	...	...	...	...	2,199	4,38,788	317	137	1,37,642	5
Backarganj	...	...	...	...	...	...	7,772	13,46,481	3,720	212	2,17,768	215
Chittagong... ...	Figures are not supplied by local officers.						...	...	...	...	...	...
Noakhali	...	...	...	...	...	...	1,578	4,51,853	238	80	40,346	24
Tippera	...	...	...	...	...	...	2,765	9,81,345	940	122	1,25,171	30
Malabar	...	...	...	...	...	...	2,515	10,21,44	61	11	1,924	2
Dinajpur	...	...	...	...	...	...	4,079	16,58,343	517	...	...	...
Jalpaiguri	...	...	332	2,07,876	...	...	891	1,20,747	...	...	...	...
Rangpur	...	...	...	...	...	...	4,046	19,10,560	163	6	3,808	...
Bogra	...	...	...	...	...	...	1,809	4,83,773	13	...	...	...
Pabna	...	...	...	...	...	...	1,785	8,59,118	28	48	24,992	42
Malda	...	...	...	...	...	...	1,695	9,00,783	49	27	23,369	2
Darjeeling... ...	49	1,929	456	4,90,934	141	60	...	...	...	...	...	...

NOTE.—The figures in this statement are as

DIX I.

Analysis.

TENANCY ACT HAS BEEN EXTENDED.			REVENUE-FREE.				SUMMARY.						Total Revenue free.
Settled.			Private properties.		Public lands.		Total permanently-settled.		Total temporarily-settled.		Total revenue-paying.		
Government Estates.													
Area.	Revenue.	Area for which record-of-rights has been prepared.	Area.	Area for which record-of-rights has been prepared.	Area.	Area for which record-of-rights has been prepared.	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	Area.
14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Rs.							Rs.		Rs.		Rs.	
13	21,483	...	123	...	9	...	2,925	3,33,499	21	28,126	2,946	3,61,625	128
1	500	...	38	...	...	...	1,727	10,06,991	1	5 0	1,728	10,06,491	38
13	5,793	2	108	3	...	...	2,401	9,86,126	12	5,793	2,513	4,21,369	169
116	76,800	116	183	160	38	...	4,083	13,91,964	501	6,47,446	5,198	28,49,404	231
71	44,832	1	45	3	1	...	1,055	13,07,151	41	61,733	1,616	13,68,874	67
68	1,33,323	65	217	...	...	..	1,016	13,06,170	680	4,84,253	1,675	17,88,245	217
...	...	...	...	...	...	...	4	16,146	...	...	4	16,146	4
38	29,627	11	25	...	12	...	2,276	5,69,891	114	90,531	2,690	9,80,422	85
17	33,719	14	65	...	...	...	1,905	17,13,514	67	63,747	1,982	18,76,261	82
4	5,353	...	48	...	4	...	2,883	8,57,979	10	1,0,464	2,875	8,67,643	52
39	1,81,396	3	39	...	1	...	2,637	5,15,783	199	2,40,705	2,636	7,56,488	40
...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	70,696	...	...	...	...	...	6,133	7,69,139	231	73,898	6,356	8,43,037	...
116	1,37,939	7	6	1	15	2	2,199	4,50,788	253	2,6,181	2,413	6,66,969	29
625	7,13,929	625	32	32	4	4	2,772	19,06,181	840	9,95,330	3,613	29,02,511	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...
279	2,69,190	389	9	2	3	1	1,375	4,21,633	339	3,19,636	1,687	7,41,269	32
20	28,181	18	197	...	1	...	2,235	9,31,345	143	1,60,353	2,397	10,99,698	102
16	6,467	5	33	...	11	...	2,516	10,21,443	37	8,291	2,553	10,29,734	64
...	...	...	53	...	...	..	4,070	16,22,343	...	...	4,070	16,22,343	53
1,200	4,67,747	...	54	...	2	...	241	1,35,747	1,433	6,79,133	3,543	8, 6,880	56
...	...	...	33	...	7	...	4,445	10,31,529	6	3,8 8	4,451	10,14,907	39
40	61,093	40	7	...	3	...	1,269	4,25,773	60	61,095	1,349	4,86,768	19
4	1,353	...	2	...	...	...	1,765	3,59,168	33	25,617	1,827	3,84,786	2
14	21,764	1	96	43	...	...	1,996	4,60,783	41	44,353	1,756	4,85,136	96
...	...	...	...	...	...	...	49	1,259	456	1,93,934	505	1,95,193	201

accurate as the information available permits.

General progress in Survey and Settlement work

District

Branch of Work.	Unit of report.	Faridpur.			Jalpai	
		Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Programme of the year under report.	Work In the year under report.
1. Traverse Survey (under Settlement Officer).	Square miles ...	...	6	1,064	...	...
2. Cadastral Survey	Ditto ...	...	6	2,813	...	...
3. Khanapuri	Ditto ...	...	6	2,913	...	...
	Plots ...	...	2,807	3,140,000	...	...
4. Preliminary office work	Square miles ...	...	6	2,913	...	...
5. Bujharat	Ditto ...	...	10	2,917	...	...
	Plots ...	...	5,270	3,100,000	...	...
	Interests ...	...	1,726	16,00,026	...	...
6. Attestation	Square miles ...	...	19	2,913	602	495
	Interests ...	...	1,726	16,00,026	1,61,858	1,61,394
7. Draft publication	Square miles ...	...	19	2,913	602	495
8. Objection under section 103A ...	Ditto ...	...	...	...	502	Nil
	Cases	2,765	2,572	60,130	1,428	48
9. Final office work—						
Janch	Square miles ...	2,125	1,573	2,554	1,150	648
Statistics	Ditto	2,314	727	1,322	198	198
Preparation of 16" maps ...	Ditto ...	1,200	431	1,362	160	160
Topo maps	Ditto ...	1,387	674	917	...	...
Preparation of final records ...	Ditto ...	610	547	630	...	...
	Interests ...	5,33,000	4,75,749	5,73,920	...	...
10. Final publication	Square miles ...	356	353	332	...	...
11. Recovery of costs	Ditto	360	320	328	...	...
	Amount, Rs.					
	(a) Voluntary ...	...	1,23,544	1,23,544	...	...
	(b) By certificate	...	1,619	1,619	...	...
12. Case work, section 103A	Cases	...	...	...	...	...
" " 103	Do.	...	...	...	...	...
" " 106	Do.	...	...	...	...	...

Minor

Branch of Work.	Unit of report.	Birbhum.		Bakarganj.		Noakhali.		Tippera.	
		Programme of the year under report.	Work done in the year under report.	Programme of the year under report.	Work done in the year under report.	Programme of the year under report.	Work done in the year under report.	Programme of the year under report.	Work done in the year under report.
1. Traverse Survey (under Settlement Officer).	Square miles ...	...	...	...	...	55	9478	1	1
2. Cadastral Survey ...	Ditto ...	...	...	...	...	22	24'8	1	1
3. Khanapuri	Ditto ...	1	1	...	...	41	43'8	1	1
	Plots ...	1,346	1,346	...	...	...	...	370	641
4. Preliminary office work	Square miles ...	...	...	...	...	41	38	1	1
5. Bujharat	Ditto ...	...	...	...	...	22	13	2	2
	Plots ...	...	...	...	...	...	...	1,963	1,834
	Interests ...	...	...	...	...	...	...	443	379
6. Attestation	Square miles ...	2'5	2'5	...	...	41	12'6	2	2
	Interests ...	1,370	1,370	...	...	7,183	4,236	223	223
7. Draft publications ...	Square miles ...	2'5	2'5	...	...	41	18'6	2	2
8. Objections under section 103A.	Ditto ...	2'5	2'5	...	...	...	...	7	7
	Cases	418	418	...	...	40	40	243	243
9. Final office work—									
Janch	Square miles ...	77	75	...	...	...	...	6	6
Statistics	Ditto ...	2'5	2'5	...	...	...	...	6	6
Preparation of 16" maps.	Ditto ...	132'3	134'3	...	...	25	25	...	...
Topo maps	Ditto ...	...	...	...	...	...	...	...	...
Preparation of final records.	Ditto ...	132	132	...	...	...	...	6	6
	Interests ...	30,226	30,131	...	...	2,977	2,977	1,071	1,071
10. Final publication ...	Square miles ...	130'5	130'5	...	...	25	14'5	7	7
11. Recovery of costs ...	Ditto ...	132'9	132'5	...	...	19'5	19	...	...
	Amount Rs. —								
	(a) Voluntary ...	...	44,823	...	...	...	...	...	...
	(b) By certificate	...	...	...	...	2,926	2,715	...	...
12. Case work—									
Section 103A	Cases	721	721	...	...	...	...	243	243
Do. 103	Do.	11,380	10,919	...	...	791	791	32	Nil
Do. 106	Do.	549	376	...	...	...	...	...	...
13. Revision in temporarily settled area—									
(a) Draft publication, section 103A.	Square miles ...	...	...	21	21	...	...	1	1
(b) Final publication	Ditto ...	...	...	21	18	...	...	1	1

DIX II.

DURING THE YEAR ENDING THE 30TH SEPTEMBER, 1912.

Operations.

GURI.	MYMENSINGH.			DACCA.			MIDNAPORE.		
done—		Work done—			Work done—			Work done—	
Up to date.	Programme of the year under report.	In the year under report.	Up to date.	Programme of the year under report.	In the year under report.	Up to date.	Programme of the year under report.	In the year under report.	Up to date.
...	...	...	...	...	...	...	...	...	...
2,037	1,456	1,123	3,632	715	715	1,630	955	955	55
2,037	1,456	1,123	3,632	715	710	1,525	955	953	955
1,617,004	1,417,000	1,217,000	3,290,280	7,10,000	5,50 000	16,50,325	918,801	6,83,501	8,83,301
2,037	1,459	1,123	3,632	715	710	1,525	955	953	955
2,037	1,459	1,070	3,623	715	699	1,475	...	...	...
1,617,004	1,417,000	1,221,000	3,274,453	7,10,000	7,96,123	17,87,447	...	...	...
2,50,479	3,40,000	3,14,000	7,20,024	1,40,000	4,24,000	9,32,323	...	...	...
2,351	875	875	2,259	545	545	913	...	...	...
2,50,819	1,50,000	1,65,000	4,76,024	5,30,174	5,26,174	4,37,456	..	...	...
2,351	875	875	2,259	545	545	845	...	...	...
1,338	875	876	2,259	680	407	632	...	...	...
5,613	9,040	9,040	22,340	6,419	4,406	5,195	..	...	...
1,464	675	550	1,312	815	631	635	...	...	...
30	862	1,484	2,154	815	545	915	...	...	...
1,122	1,684	704	1,884	270	270	270	...	..	...
587	...	...	...	...	...	...	...	...	...
...	596	395	906	...	...	...	...	...	...
	1,60,000	96,000	1,16,117	...	...	...	..	...	...
...	356	351	351	...	...	...	..	...	...
..	356	351	351	...	...	...	..	...	...
...	1,00,000	86,000	86,000	...	...	..	...	...	...
...	...	15	15	...	...	...	...	...	...
...	4	4	4	...	...	...	...	...	...
...	196	129	129	...	...	...	...	...	...
...	98	47	47	...	..	..	...	..	...

Operations.

DISAPUR.		RAJSHAHI.		BOGRA.		HOOGHLY.		JESSORE AND KHULNA.	
Programme of the year under report.	Work done in the year under report.	Programme of the year under report.	Work done in the year under report.	Programme of the year under report.	Work done in the year under report.	Programme of the year under report.	Work done in the year under report.	Programme of the year under report.	Work done in the year to-be under report.
...	...	...	...	...	...	2'8	2'8	...	...
...	...	...	...	...	...	2'8	2'8	32'3	32'2
...	...	...	...	...	...	2'8	2'8	32'3	32'3
...	...	...	...	...	...	2,119	2,119	23,769	23,769
...	...	...	...	...	...	2'8	2'8	32'3	32'3
...	...	...	...	...	...	2'8	2'8	...	...
...	...	...	...	...	...	6,768	6,768	...	...
...	...	...	...	...	...	2,931	2,931	...	...
...	...	...	...	...	...	2'8	2'8	...	...
...	...	...	...	...	...	2,931	2,931	...	...
...	...	...	...	...	...	6'7	6'7	...	...
...	...	...	...	...	...	11'2	11'2	...	...
...	..	...	...	...	...	1,413	1,413	...	122
...	...	...	...	...	...	22'2	19'4	...	...
...	...	...	...	...	...	22'2	19.4	...	...
...	...	...	...	...	...	22'2	19'4	...	..
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	22'2	19'4	...	...
...	...	...	...	...	...	...	...	...	...
...	...	11	9	...	...	19'4	19'4	...	16'6
...	...	...	...	...	...	'5	'5	...	...
...	...	...	...	...	...	91	91	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	32	31	...	...
1,747	723	...	...	120	120	3,450	2,493	...	...
850	143	74	811	...	...	657	583	...	...
...	..	...	...	...	...	...	...	...	...
...	...	1	1	...	...	...	...	...	...

APPENDIX III.

Return of disputes and inspection during the year ending the 30th September 1912.

District.	Area in square miles cadastrally surveyed during the year.	Personal portal in linear miles.			Independent portal in linear miles.	Total number of plots khanapuried.	Number of plots tested.			Number of boundary disputes decided.	Number of internal disputes decided.	
		By gazetted officers.	By Kanungos and Head Inspectors.	By Inspectors.			By gazetted officers.	By Kanungos and Head Inspectors.	By Inspectors.		During khanapuri and inspection.	During attestation.
	1	2			3	4	5			6	7	
Jalpaiguri	...	...	...	...	...	...	...	...	...	88	...	4,200
Mymensingh ...	1,123	326	2,373	...	...	1,316,000	Not collected.			329	Statistics not collected.	
Dacca	715	...	3,493	...	...	865,000	...	119,711	...	17	5,745	1,746
Midnapore ...	968	237	440	1,673	1,329	628,859	14,665	23,483	99,206	291	6,193	...
Birbhum	...	...	...	...	...	1,346	71	...	...	...	316	880
Bakarganj (provisional).	...	...	...	...	...	60,000	...		...	...	80	...
Noakhali	95		30	...	...	17,367	318	1,533	...	...	173	7
Tippera	1	...	...	...	...	641	1,324	...	...	4	1	11
Hooghly	2·86	½	...	3	1½	2,119	...	...	218	2	...	1
Khulna (Mokimpur Estate).	23·33	21	...	39	23	23,769	2,797	...	3,560	8	248	...

APPENDIX IV.

APPENDIX

Progress in revision of land revenue during the

District.	Number of estates under revision.	Total area in acres.	Area in which rent roll has been draft published.		Area in which rent roll has not yet been draft published.	Objection under section 104 F.		Area in which rent roll confirmed under section 104 F.	Old rent.	New rent.
			Previously.	In the year under report.		Pending for decision.	Decided.			
	1	2	3		4	5	6			
									Rs.	Rs.
Faridpur	249	89,609	5,129	61,440	13,440	407	1	45,090	1,04,272	1,35,726
Jalpaiguri	5	625,600	...	303,600	272,000	153	2,393	...	...	...
Mymensingh	45	12,800	...	...	...	...	...	...	...	...
Bakarganj	13	13,440		14,529	1,929	...	...	...	...	...
Noakhali	12	10,240	...	10,240	...	402	...	9,600	4,447	17,190
Tippera	8	640	...	305	335	14	...	305	513	837
Rajshahi	6	7,040	5,120	1,920	...	10	...	5,770	1,170	2,041
Hooghly	28	640	...	640	...	70	...	53	230	347
Total ...	366	720,409	10,249	479,645	287,623	1,056	2,394	60,243	1,10,632	1,49,200

APPENDIX

Progress of rent settlement in areas not under revision of land

District.	Commutation under section 40.				Proceedings under section 105 (c) (Western Bengal Districts only).				Class of tenants.
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Pending at the end of the year.	Number of tenants.	Rent recording to landlord.	Rent legally payable.	Rent settled by compromise.	
1	2	3	4	5	6	7	8	9	10
Mymensingh ...	...	...	...	...	...	...	...	...	(a) Tenure-holders ... ...
									(b) Raiyats ... ...
									(c) Under-raiyats ... ...
Birbhum	174	140	34	...	203	1,157	1,373	1,375	(a) Tenure-holders ... ...
									(b) Raiyats ... ...
									(c) Under-raiyats ... ...
Noakhali	...	...	...	...	...	...	...	...	(a) Tenure-holders ... ...
									(b) Raiyats ... ...
									(c) Under-raiyats ... ...
Dinajpur	...	...	...	...	...	...	...	...	(a) Tenure-holders ... ...
									(b) Raiyats ... ...
									(c) Under-raiyats ... ...
Bogra	...	...	...	...	...	...	...	...	(a) Tenure-holders ... ...
									(b) Raiyats ... ...
									(c) Under-raiyats ... ...
Hooghly	3	...	3	...	434	6,734	6,734	7,837	(a) Tenure-holders ... ...
									(b) Raiyats ... ...
									(c) Under-raiyats ... ...
Total ...	177	140	37	...	637	~~7,891~~ 7,971	8,107	9,212	

IV.

year ending the 30th September, 1912.

Effect on the rental of raiyats.										
Amount of increase due to—					Amount of decrease due to—		Area in which record-of-right finally published.	Number of estates in which revision of land revenue completed.	Financial result.	
Increase in area.	Extension of cultivation.	Increased fertility of the soil.	Rise in prices.	Neighbouring rates.	Decrease of area.	Deterioration of the soil.			Old revenue.	New revenue.
7							8	9	10	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.				Rs.	Rs.
...	...	...	...	...	...	...	70,400	168	98,66	1,33,302
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...		
...	...	...	...	...	...	...	...	...	...	...
...	12,243	312	198	...	...	...	9,600	10	6,255	17,129
180	...	...	265	...	11	...	305	6	513	857
...	...	...	...	...	...	...	5,760	18	3,031	4,092
...	69	...	9	39	...	...	58	2	268	347
180	12,311	312	412	39	11	..	86,123	204	1,06,733	1,44,767

V.

revenue during the year ending the 30th September, 1912.

Proceedings under section 105.										
Number of tenants for whom a fair rent has been determined.	Former rent.	New rental.	Difference per cent. + or −.	Analysis of variations in the case of raiyats.						
				Amount of increase due to—					Amount of decrease due to—	
				Increase of area.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease of area.	Deterioration of the soil.
11	12	13	14	15	16	17	18	19	20	21
	Rs.	Rs.		Rs.			Rs.		Rs.	
...	...	..	...							
...	11,228	12,803	+ 14	975	...	...	291	...	15	...
...	...	...	...							
4	...	...	...							
19,015	23,457	1,05,417	+ 23·4	...	...	...	..	...	...	...
20	...	...	...							
...	...	...	...							
875	4,109	4,498	+ 9·46	...	...	...	389	...	...	...
...	...	...	...							
1	70	100	+ 43	...	...	...	30	...	...	...
197	883	1,006	+ 14	...	...	...	123	...	...	...
...	...	...	...							
...	321	321								
...	3,166	3,729	+ 17·7	...	...	...	563	...	...	...
...	4,983	4,983								
224	...	819	...							
2,311	14,422	16,901	+ 16·5	1,010	...	..	1,574	...	...	...
...	...	...	...							
13,847	1,16,545	1,30,364	20·7	1,985	...	...	3,079	...	15	...

APPENDIX VI.

Statement showing the nature and number of holdings recorded in each settlement during the year ending 30th September 1912.

[NOTE.—In most cases statistics in this form had not been prepared.]

DISTRICT.	Name of each tract under settlement.	NUMBER OF KHATIAN RECORDED IN THE NAME OF—												
		Proprietors.		Tenure-holder's cultivating possession.	Raiyat at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.
		As private lands.	Not as private lands.						Service tenure.	Other.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Jalpaiguri ...	.....	...	2,511	10,140	1,699	70,234	...	2,960	75	819	2,133	407	100,198	80,257
Birbhum ...	Zamindari estates ...	...	...	51	67	1,053	7	9	5	94	23	1	1,270	94
Noakhali	Government and temporarily-settled private estate.	...	15	513	413	2,125	3	203	...	8	2		3,332	491
Hooghly ...	Government and temporarily-settled estates	...	...	1	...	166	2	50	...	...	4	...	223	5
	Zamindari estates ...	...	2	24	120	2,393	7	68	15	314	7	7	2,866	169

APPENDIX VII.

APPENDIX

Statement of expenditure for work done (including all book

IN THE YEAR UNDER

BRANCH OF WORK.	FARIDPUR.			JALPAIGURI.			MYMENSINGH.			DACCA.			MIDNAPORE.		
	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse survey (done by Settlement Officer.)	...	476	...	...	...	...	...	...	...	...	611	...	...	...	...
Cadastral survey ...	6	157	26	...	...	...	1,123	1,16,836	104	715	65,408	91	868	58,633	61
Khanapuri	6	91	15	...	...	...	1,123	41,632	37	710	41,729	58	958	32,572	34
Preliminary office work ...	...	...	...	...	...	...	1,123	19,413	17	710	12,700	17	958	20,113	21
Rujharat.	10	391	39	...	...	...	1,070	91,354	85	686	63,448	96	...	...	...
Attestation	10	1,416	141	496	21,456	43	875	37,361	42	545	62,675	115	...	...	...
Objections	..	2,528	...	...	...	...	875	14,013	17	500	6,612	...	...	...	...
Final office work. Jaoch	1,573	37,231	24	848	14,875	23	550	7,949	14	...	5,542	...	...	...	...
Final office work. Statistics	797	8,547	11	198	2,691	14	1,484	9,416	7	540	2,722	5	...	...	...
Final office work. Preparation of 16" maps.	531	6,618	7	160	5,488	24	704	5,761	8	270	548	2	...	...	...
Final office work. Topographical maps.	673	983	1	...	...	...	...	...	...	...	...	...	...	...	...
Final office work. Final records ...	546	63,029	126	...	...	...	395	13,322	39	...	...	...	...	...	...
Computation and recovery	326	5,931	18	100	350	4	331	1,973	6	...	...	...	...	...	...
Case work	...	105	...	...	...	...	88	1,652	19	...	...	...	...	...	...
Supervision	...	33,106	...	...	30,048	...	...	32,184	...	...	65,336	...	...	36,582	...
Supplies, services and contingencies.	...	22,112	...	...	10,189	...	...	56,954	...	...	21,352	...	...	53,548	...
Jamabandi	60	22,243	370	725	33,635	46	...	1,330	...	...	...	...	...	...	...
Diara	...	7,124	...	...	...	...	...	...	...	...	748	...	...	...	...
Farsiton	...	2,893	...	...	...	...	...	100	...	...	4	...	...	...	...
Jess Revaluation ...	942	10,919	12	...	1,162	...	...	...	...	...	...	...	...	...	...
TOTAL COST ...	...	2,30,907	...	...	1,35,954	...	...	4,58,033	...	...	5,49,176	...	...	2,01,658	...

VII.

debit charges). during the year ending the 30th September 1912.

REPORT.						PREVIOUSLY.											
RAJSHAHI.			MINOR SETTLEMENT OPERATIONS.			FARIDPUR.			JALPAIGURI.			MYMENSINGH.			DACCA.		
Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs	Rs.
...	...	...	192	7,015	37	...	27,607	...	...	...	...	...	...	...	...	2,637	...
...	...	...				2,936	3,38,060	113	2,037	2,30,554	113	2,539	2,63,574	105	815	30,120	99
...	...	...	...	...	...	2,936	1,31,066	45	2,037	1,08,433	53	2,539	99,776	39	815	33,250	64
...	...	...	53	2,315	42	2,936	53,977	18	2,037	69,107	34	2,539	44,853	18	815	14,^8.	18
...	...	...	32	2,462	124	2,902	3,51,536	126	2,037	1,67,691	82	2,539	1,89,223	76	815	89,052	119
...	...	...				2,902	1,66,875	57	1,616	77,000	48	1,634	1,02,027	60	270	23,051	86
...	...	...	14	1,494	107	...	93,720	...	1,616	21,255	13	1,634	26,380	23	135	2,439	19
...	...	...				751	95,218	122	816	66,178	81	762	13,291	18	...	1,856	...
...	...	...				595	15,633	26	400	12,133	31	640	2,418	4	270	2,963	9
...	...	...	265	2,466	36	431	17,760	41	902	19,567	21	889	2,744	17	...	...	...
...	...	...				244	7,035	29	...	...	...	...	...	...	...	...	...
...	...	...				109	33,843	329	...	...	...	106	5,388	51	...	...	...
...	...	...	144	1,570	10	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	195	21,425	110	...	...	...	...	...	...	...	...	...	...	...	...
...	6,162	...	...	2,789	...	...	2,90,504	...	...	1,55,975	...	...	2,80,731	...	...	64,254	...
...	7,798	...	...	7,859	...	...	4,61,156	...	...	1,35,761	...	...	1 67,343	...	...	84,567	...
...	...	...	...	...	...	8	19,554	1,319	...	67,537	...	...	...	...	...	...	...
...	...	...	...	...	...	...	19,927	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	124	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	19,397	...	...	2,050	...	...	...	...	...	...	...
...	13,960	...	...	62,493	...	...	21,17,497	...	...	11,74,136	...	...	12,29,280	...	...	4,19,269	...

APPENDIX VIII.

Result of Inspection of Survey Marks during the year ending the 30th September 1912.

Division and District.	Total number of estates surveyed under the Survey Act or Bengal Tenancy Act.	Total number of estates in which permanent boundary marks are erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.
					Number in fair order.	Number damaged.	Number missing.		
1	2	3	4	5	6	7	8	9	10
Burdwan.				Government and Temporarily-settled Estates.					
Burdwan	5	14	474	376	339	13	19	1	White-washed at a cost of Rs. 4.
Birbhum	3	3	14	14	14	...	...	...	.....
Bankura	10	10	47	47	47	...	...	...	Rupees 1-13
Midnapore	...	69	3,342	2,694	2,288	6	396	4	Cost met by
Hooghly	37	54	693	593	576	10	7	4	tenure-holders.
Howrah	3	3	7	7	1	6	...	...	.....
Presidency.									
24-Parganas	35	33	2,218	1,931	1,676	166	90	36	Rupees 20-4.
Nadia	47	32	1,073	665	589	33	3	32	,, 27-8
Murshidabad	105	77	866	354	345	1	8	...	...
Jessore	...	3	28	28	26	2	...	...	.....
Khulna	49	38	656	564	477	31	56	...	.....
Dacca.									
Bakarganj	174	111	345	30	30	...	...	...	.....
Chittagong.									
Chittagong	5	5	Not known	984	903	11	48	9	.....
Noakhali... ...	11	...	...	102	99	3	...	...	.....
Rajshahi.									
Jalpaiguri	5	6	2,541	31	27	...	7	...	.....
Bogra	2	3	478	405	405	...	...	...	.....
Malda	16	10	138	138	133	...	5	...	.....
Darjeeling	2	2	137	137	137	...	...	...	.....
Total ...	514	475	12,974	9,063	8,078	286	639	86	53-9
Burdwan.				Wards' Estates.					
Midnapore	...	10	1,540	1,524	1,030	88	397	1	Annas 8.
Hooghly	6	3	49	49	49	...	...	...	.....
Presidency.									
Jessore	2	2	141	34	34	...	...	...	.....
Khulna	1	1	9	4	4	...	...	...	.....
Dacca.									
Bakarganj	3	3	1,006	1,006	1,000	10	6	4	Rupees 2-3 met from Estate Fund.
Rajshahi.									
Dinajpur	1	1	680	267	199	8	...	...	... ...
Malda	3	3	103	103	97	1	5	...	.....
Total ...	16	23	3,528	2,987	2,413	117	408	5	Rupees 3.
Burdwan.				Zamindari Estates.					
Burdwan	70	42	264	216	213	...	3	...	...
Birbhum	4	4	362	264	245	...	...	...	6
Bankura	60	60	291	291	291	...	...	...	Rupees 6-14 met by Burdwan Raj.
Midnapore	...	15	590	590	447	7	136	16	Rupees 49 met by Sujamutha Estate.
Hooghly	16	12	133	115	115	...	...	...	.....
Presidency.									
Nadia	2	2	37	37	36	...	1	...	.....
Murshidabad	11	11	1,489	1,414	1,118	...	294	...	.....
Jessore	2	19	369	295	290	2	1	...	.....
Dacca.									
Bakarganj	3,025	3,025	4,507	304	...	...	304	304	Rupees 277, of which Rs. 130 met from Director of Land Records budget grant plus Rs. 127 met from Collector's budget grant.
Rajshahi.									
Rajshahi	...	...	...	6	6	...	...	...	.....
Malda	4	...	474	403	402	2	91	...	.....
Total ...	3,194	3,284	5,890	4,056	3,215	11	832	326	1,032 14 0
Grand Total ...	3,724	3,782	23,392	16,019	13,706	414	1,879	417	1,089 7 0

N.B.—The figures against "Total" in cols. 2, 3 and 4 are not complete for want of figures in certain cases.

B. S. Press—3-3-1913—2859J—380—T. W.

ANNUAL REPORT

OF THE

SURVEY OPERATIONS IN BENGAL (OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

1911-1912.

CALCUTTA:
THE BENGAL SECRETARIAT BOOK DEPÔT.
1913.

INDEX TO CONTENTS.

CHAPTER I.

PAGE.

General remarks 1

CHAPTER II.

PART I.

Report on surveys in temporarily-settled and Government estates under settlement of rents and land revenue 2

PART II.

Report on surveys in private estates—

Rajshahi Division—Rajshahi district (Uplands) 2

Dacca Division—Mymensingh district . . . . . *ib.*

Jamuna diara areas in and between Mymensingh and Pabna districts . . . 3

Dacca Division—Dacca district (Relaying work) 4

Ditto ditto (New traversing) . . . . . *ib.*

Rajshahi Division—Jalpaiguri Tea Gardea 5

Burdwan Division—Midnapore district 6

PART III.

Reports on Miscellaneous surveys—

24-Parganas district—Calcutta surveys 6

Ditto ditto —Tangra char 9

Khulna district—Mohanpur estate . . . . . *ib.*

Burdwan and Nadia districts—Majaida char 10

Darjeeling district—Darjeeling town . . . . . *ib.*

Ditto ditto —Takdah Cantonment . . . . . *ib.*

Rangpur district—Tagore and Kasimbazar estates . . . . . *ib.*

Rangpur—Cooch Behar boundary 11

Chittagong district—Chittagong town . . . . . *ib.*

Chakla-Roshonabad and Chittagong boundary—locating the revenue survey mid-stream position of the Feni river . . . . . *ib.*

Rajshahi—Murshidabad diara areas 12

PART IV.

Report on Drawing Office—

Bengal Drawing Office 12

Shillong Drawing Office—Reproduction section 13

Ditto ditto —Map Issue and Copying section 14

Ditto ditto —Badar section . . . . . *ib.*

Ditto ditto —Record section . . . . . *ib.*

CHAPTER III.

PART I.

Tours of the Director of Surveys 14

PART II.

Services of Officers 14

LIST OF APPENDICES.

APPENDIX I.

PART A.

Summary of outturn of work i

PART B.

Statement of outturn and cost rates . . . . . *ib.*

APPENDIX II.

Expenditure statement ii

APPENDIX III.

Outturn of Bengal Drawing Office iv

No. 15.

FROM CAPTAIN F. C. HIRST, I.A.,
Director of Surveys, Bengal and Assam,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Shillong, the 1st January 1913.

SIR,

I HAVE the honour to submit the report on the survey operations, other than cadastral surveys, in Bengal, during the last survey year viz., 1st October 1911 to 30th September 1912.

2. Lieutenant-Colonel R. T. Crichton, I.A., C.I.E., was in charge of the work in the Western Bengal divisions (Presidency and Burdwan), and I have held charge of the work in the remainder of the Province. We were both present throughout the year under report, except for a short period when Colonel Crichton was absent on special duty in Madras, during which time Mr. A. W. Smart, Extra Deputy Superintendent, held temporary charge in Western Bengal.

3. It has been thought convenient that I should write the report for the whole Province, and I have made use of details supplied by Colonel Crichton for the Western Bengal work. Colonel Crichton has corrected my manuscripts before their submission to Government.

CHAPTER I.

GENERAL REMARKS.

4. The outturn for the year, excluding linear and petty surveys, and including the relaying of 100 square miles of old traverse in the Dacca district, was 3,279 square miles, which is approximately the average outturn for the last few years.

5. The magnetic declinations given in this report are to the nearest 15 minutes, and they apply to the year 1912 only. If more accurate values are required, they may be obtained from the Surveyor-General.

The list of declinations referred to in paragraph 4 of my last report Eastern Bengal and Assam has been brought up to date and supplied to all concerned.

6. Owing to the administrative changes introduced from 1st April 1912, by which the survey work of Bengal was untouched and left in the hands of two different departments, which in some ways were working on somewhat different principles, I have omitted all remarks upon changes introduced or discussed during the year from this report.

CHAPTER II.

PART I.—REPORT ON SURVEYS IN TEMPORARILY-SETTLED AND GOVERNMENT ESTATES UNDER SETTLEMENT OF RENTS AND LAND REVENUE.

Nil.

PART II.—REPORTS ON SURVEYS IN PRIVATE ESTATES.

RAJSHAHI DISTRICT (UPLANDS).

Traverse Survey.

(Mr. P. F. Delaney in charge.)

7. The traverse survey of this district was postponed by the order of the Board of Revenue in its letter No. 475 S.S., dated 24th February 1912, and for financial reasons the work, then in its recess stage, was closed down exactly as it stood.

By Government order No. 1209 T.—R., dated 2nd August 1912, work in the district was to be proceeded with, and all that has been done in this year has been the picking up of the threads of the recess work of the Nattore subdivision and arranging for the field season of 1912-13.

MYMENSINGH DISTRICT.

Traverse Survey.

(Mr. C. A. O'Donel in charge.)

8. The survey of this district was continued from last year, the areas traversed being:—

Thana.					Square miles.
Durgapur	...	...	...	...	340
Netrakona	...	...	...	...	433

Of the total area of 773 square miles traversed it was found impossible to complete 9 square miles of Durgapur and 8 square miles of Netrakona, as the areas became submerged early in April 1912. In a few other places it was not possible to complete the revision work before the party returned to recess.

This kind of thing must be expected right down the eastern side of the Mymensingh district, parts of which are similar to the Sylhet bhil country.

The arrears are to be worked off very early in the coming field season, and the Settlement Officer's work should not be disorganized.

9. The origin of survey is the intersection of Latitude 24° 30′ N. with Longitude 90° 30′ E.

10. Owing to the paucity of great trigonometrical stations in this area and near it, the only point picked up has been Rangsi Tila H S. fixed recently by No. 12 Party of the Survey of India in the Sylhet topographical survey. I am in communication with the Surveyor-General on the subject of fixing

accurate points in this neighbourhood, as without them I cannot finally close any of the traverse work to the east of the district, and until that work is closed no projections for jurisdiction maps can be made.

11. The mean magnetic declination is 1° E.

12. The traverse plots fall on 1,902 sheets.

13. The new traverse stations were marked with 2,470 trijunction stones, three *pucca* pillars, 585 galvanized iron cylinders, and 13,429 large bamboo pegs.

14. The 16-inch plotting and computing (so far as the latter is possible) are well up to date. The Settlement Officer has been supplied with a *mujmil* showing where he is likely to meet with difficulties owing to the prevalence of jungle or swamp. This will save the Settlement Officer some trouble, and the system will be continued in next year's programme.

The Land Records Department should note that south of the area reported upon there are large tracts of bhil areas that can only be surveyed between the 15th January and 15th April. Mr. O'Donel estimates about 250 square miles of such area in the programme for 1912-13.

15. Work throughout the area traversed this year was greatly delayed by jungle and swamp lands and by the lack of knowledge of their boundaries by the inhabitants. Really low rates are impossible with such conditions.

Mymensingh and Pabna Districts (Diara).

Traverse Survey.

(Mr. C. A. O'Donel in charge.)

16. The block of Jamuna river diara in and between Mymensingh and Pabna districts was traversed for cadastral survey the same season; its area was 421 square miles.

17. The same origin was used as has been used throughout for the uplands area of the Mymensingh district.

18. The work was connected with two great trigonometrical stations on the west of the Jamuna, and with old traverse stations in thanas Gopalpur, Kalihati and Tangail. The value of the traverse work will not be known completely until it is closed finally (*vide* paragraph 10 above).

19. The traverse plots fall on 832 sheets, which were supplied to the Settlement Officer during the early part of the season. Revisions caused some delay, and the Settlement Officer received some sheets late. This is to be expected if such large diara programmes are taken up; on more than one occasion I have attempted to get a 250 square miles unit adopted as a maximum, but so far without success.

20. So far as was possible the revenue survey maps of both districts were used to guide the traverses as to where village boundaries lay, but partly because of great changes in the country—changes to be expected in a river so young and strong as the Jamuna and partly because the two revenue surveys were not properly connected and an unsurveyed gap of about 20 square miles occurred between the two old surveys, it was decided to ignore village boundaries near the middle of the area and to use blocks of *chars* as units.

21. I had hoped to give the Settlement Officer some kind of comparative maps of this area during the field season. The intention was to make a comparison in the recess season of 1911 by showing on a set of 4-inch maps the main traverses on both banks of the river and the revenue survey and diara survey boundaries, then during the field season to plot new traverses on to these maps. This plan was frustrated mainly because of the bad junctions between the two revenue surveys and partly because the programme was too large to be dealt with quickly.

22. During the season the Settlement Officer of Mymensingh asked that 17 upland villages in Pabna be traversed: these were traversed and the plots supplied to him. The areas are included in the figures already given. The villages will be cadastrally surveyed next year.

DACCA DISTRICT.

Traverse Survey.

(Mr. C. Graham Lee in charge.)

23. *Relaying work.*—One hundred square miles were relaid in thanas Sabhar and Keraniganj along the Buriganga river; owing to river movements some retraversing had to be done.

24. No azimuths were observed.

25. The new traverse stations were marked as follows:—

Old stones	231
New do.	107
Old galvanized cylinders	180
New ditto	5
Old pegs	Nil.
New do.	1,259

Only about 30 per cent. of the old marks were found by the relaying staff.

26. The 16-inch plots fall upon 271 sheets.

27. The origin used was the intersection of E. Longitude 90°-30′ and and N. Latitude 24°-30′.

28. The maps of the revenue survey of 1859-60 were used to guide the traversers, who were also provided with relaying data from Mr. A. W. Smart's old traverse. No demarcation of any sort was done by the villagers.

29. The traverse records are completed and the 16-inch plots were despatched to the Settlement Officer early in the field season.

30. Twenty sheets of the 4-inch comparative map work were completed for the Settlement Officer and supplied to him.

The area mapped extends from Samidpur on the Jamuna river to Palpur on the Dhaleswari river, or from Latitude 24° to 23° 45′ in mid Longitude 90°.

The maps show revenue survey and diara survey boundaries and our traverse work: on them the Settlement Officer can show his detail work and existing boundaries These sheets are compiled by bringing to one origin the traverse work of all three surveys, and they are therefore as accurate a basis for comparison as can be obtained.

31. No great trigonometrical stations were connected with, but the work is closed on old traverse for which we have final values on two sides.

32. The programme for next field season includes no relaying of village traverses.

DACCA DISTRICT.

Traverse Survey.

(Mr. C. Graham Lee in charge.)

33. *New Traversing.*—In addition to the work just reported upon, an area of 716 square miles was traversed in thanas Rainura and Kapasia; of this area 122 square miles lay in the Madhupur jungle tract. The same origin was used as is given in paragraph 27.

34. The number of azimuths observed was 90.

35. The ordinary methods of traversing were adopted everywhere except in the Madhupur jungle. There the extraordinary surface formation demanded a departure from usual methods. The area was divided into square blocks, and sub-traverses were run along as many of the cultivated ravines as possible. It is proposed that we should supplement these with plane table traverses unless the accurate running of the short plane table traverses required is safely within the powers of the settlement staff. The area is one of very great difficulty in that the suitable placing of the theodolite stations is very nearly impossible except at inordinate expense.

Initially, the blocks were rigid squares with sides running true north and south or east and west, but I found this meant very slow work; and later on in the season was able to modify the system and to accept less rigid squares. It is upon this modified system that the remainder of the Madhupur jungle will be traversed next season.

36. The temporary traverse stations were marked on the system set forth in paragraph 32 of last year's report for Eastern Bengal and Assam.

37. Great trigonometrical connections were made with Barjatna hill station and Singabir temple of the Eastern Frontier series. Both of these lie in Tippera district and are close together. The traverse error between Barjatna and Singabir temple was 6 feet per linear mile.

38. The traverse plots fall upon 1,401 sheets, of which 142 are Madhupur jungle.

The marks used at traverse stations were:—

Stones	...	...	...	...	1,425
Galvanized cylinders		..	...	...	491
Wooden pegs	...	...	...	...	18,574
Old stones	...	...	...	...	53
			Total	...	20,543

38A. The mean magnetic declination for the whole district is 0° 45″ E.

39. The revenue survey maps of 1859-60 were used to guide the traversers in the open tracts.

40. The staff at field head-quarters at Jaidebpur suffered from poor health, owing partly perhaps to their sedentary habits. The field staff kept fit. Next field season the head-quarters are to be in Dacca.

41. The traverse records are complete and all 16-inch and 4-inch plots have been sent to the Settlement Officer. Some plots were delayed unavoidably, owing partly to the plotting staff having been weakened to strengthen the Rajshahi traverse computing establishment.

42. Next season's programme is the traversing of 605 square miles of uplands in thanas Sabhar and Keraniganj, and 250 square miles of Dacca-Tippera diara along the Meghna river. Part of this diara area will be traversed on the system of square blocks as an experiment. In contrast to the Madhupur jungle, this area is flat and quite open, intersected by many large and small khals, which will require theodolite sub-traverses on both sides.

Jalpaiguri Tea Garden Survey.

(Mr. A. F. Corridon in charge.)

43. By Government order No. 815 R., dated 18th April 1911, I was told to carry out the detail survey of such tea gardens as required them and started work on a list provided by the Settlement Officer.

44. The expected programme was 60 gardens west of the Torsa river, area 150 square miles, for traverse and detail survey, and 10 gardens previously traversed, area 30 square miles, east of that river.

The estimate was lower than actuals, which are 75 gardens west of the Torsa (198 square miles) and 10 gardens east of the Torsa (65 square miles).

45. Of this area the outturn obtained was:—

Traversed 75 gardens—area 198 square miles. Details completed in 39 gardens—area 60 square miles. Details partly completed in four gardens—area 13 square miles. There therefore remain 46 gardens for detail survey, covering an area of 203 square miles.

46. The difference between the expected and actual areas is partly due to more gardens being added to the original list through applications received late by the Settlement Officer and to under-estimating by me.

47. The detail outturn is very low indeed, and needs explanation.

The work required to be done was quite new to me, and I had little idea of what staff would be required. I therefore started with a low staff with the intention of increasing it as soon as sufficient details were available to estimate upon. These details Mr. Corridon should have supplied me with; but all that I could obtain from him were demands for an increased staff instead of details that would enable me to know what increase was required. Finding that Mr. Corridon was incapable of doing what I asked him to do, I removed him from the charge.

48. The survey will be completed next field season and the original estimate will not be exceeded.

Midnapore District.

Traverse Survey.

(Mr. A. W. Smart in charge.)

49. An area of 1,069 square miles in thanas Jhargram, Gopiballabhpur, Kharakpur, Naraingarh and Dantan was traversed in advance for cadastral survey in 1912-13, and 3 square miles in Binpur thana traversed for cadastral survey in the year under report.

50. The work was in continuation of that done last year, and, except in thanas Jhargram and Gopiballabpur, the unit of survey was the revenue survey mauza. In the two thanas named here since there had been no previous revenue survey, village boundaries, as pointed out by the inhabitants, were traversed.

51. The area was divided into 5 main circuits, 42 sub-circuits, and 43 *pardas*.

52. The new traverse stations were marked by 4,850 stone prisms, 40 *pucca* pillars, 340 galvanized cylinders, 190 local stones, 11 marks on rocks, and 16,528 wooden pegs.

53. The necessary connections with previous surveys were obtained and used.

54. Seven great trigonometrical stations of the South Malancha Meridional and East Coast Longitudinal Series were connected with. The average error per mile in direct distance was 14·4 feet per square mile.

55. The area falls on 3,036 16-inch sheets, all of which were sent to the Settlement Officer in ample time for his purposes. The computations are also complete.

56. The mean magnetic declination of the district is 0° 30′ E.

PART III.—MISCELLANEOUS SURVEYS.

Miscellaneous Surveys in Western Bengal. Report of the Calcutta Surveys.

(Mr. R. B. Smart in charge.)

57. The following heads comprised the work of the year:—

(*a*) Completion of demarcation of municipal and revenue holdings in the town of Calcutta.

(*b*) Completion of demarcation of lands lying in Sutanati in the town of Calcutta.

(*c*) Completion of the drawing of the municipal sheets and despatch of them for reproduction.

(*d*) Compiling of revenue blocks as originally decided upon, instead of surprinting revenue limits on the municipal maps; the latter plan has been condemned.

(*e*) Disposal of remaining boundary disputes.

(*f*) Attending to references made by the Attestation Officer in regard to revenue holdings.

(*g*) Preparation of the 16-inch wall map and publication of that map for Districts I, II and III.

(*h*) Attending to objections raised by parties and the Corporation on lodgment of maps under section 20 of Calcutta Survey Act (Act I of 1887).

(*i*) Final comparison of the khasra (handed over to the Deputy Collector Land Revenue) with the block plans.

(*j*) Calculation of areas of contained municipal premises in revenue holdings as required by the Commissioner of the Presidency Division.

(*k*) Completion of the survey of the Grand Trunk Road, Howrah, and correction of field maps after settlement of boundary disputes and demarcation of road limits showing pillars placed after survey.

(*l*) Traversing of the Maniktola and Tollygunge Municipalities for the Improvement Trust.

(*m*) Detail survey of the Maniktola Municipality for the Improvement Trust.

58. The only detail survey carried out was the survey of the Maniktola Municipality; work commenced about the end of May and is still in progress; during the year about 2 square miles out of 3·5 have been completed. Although the area surveyed is not as congested as the town of Calcutta and portions of its suburbs, and although the area may be called uncongested, the work has been greatly retarded owing to the jungle met with, it being difficult for the *amins* to cut up their blocks unless a very large number of sub-traverses is provided. There are several factories in the area, but few other *pucca* buildings; the area is mainly covered with gardens.

59. The demarcation of that town area, in which municipal holdings existing in uncongested or *basti* areas were not shown in the survey of 1887-93, has been completed, and the present survey shows all municipal premises according to the lists supplied by the Corporation. But it appears that the limits and numbers of municipal premises are constantly changing, to such an extent that to keep the maps up to date would necessitate the reprinting of them almost monthly. Already maps but lately printed and published are, so far as municipal premises are concerned, in places, out of date. As regards the demarcation of the revenue holdings, attempts were made to bring the maps up to date and to adhere to present possession regardless of all transactions in the Land Registration Department, but it was of no avail; errors committed at the time of land registration have been reproduced on the present maps. As the Commissioner has held that no reponsibility lies with the Survey Department, no further attempts have been made to reconcile present possession limits; holding numbers as they will now appear will be in accordance with the land registration records, and not necessarily by actual possession. In other words, errors which exist in the records of the Land Revenue and the Registration Departments have been perpetuated; this seems to be a great pity. The demarcation of the municipal and revenue holdings of the Maniktola Municipality has just been started, and sanction has been accorded to the preparation of a record showing the revenue holdings and contained municipal holdings.

The demarcation of the Grand Trunk Road, Howrah, was brought to a close, the scale used throughout being 20 feet to the inch. Sanction has also been obtained for the fair drawing and reproduction of the maps of the Grand Trunk Road upon a requisition from the Executive Engineer, 3rd Calcutta Division, and the work has now been taken in hand.

60. The only old maps of revenue holdings which existed are the block plans of the Northern and Southern Divisions, and these maps

only served as guides to determine approximately the position of the holdings; whenever there were disagreements, the old block plan holding numbers have been adopted in several instances against actual possession. Besides the block plans there is a field book in existence of the Northern Division, but not of the Southern Division; this field book simply gives the length of the sides of the holdings from which it would appear that all the boundaries are straight lines; but such is not the case. Owing to the manner in which the field book was compiled, several claims based on the field book arose. The block plans could not be taken as correct, because subdivisions of original holdings have been made on these original plans, and these subdivisions have not always been correctly shown. It appears that the subdivision of holdings has been done in a perfunctory manner, but although this fact has been pointed out, existing errors have not been corrected. Another matter is that of drains not included in adjoining holdings, and of which no notice was taken during the survey of 1887-93. On comparing the block plans with the 50-feet survey, many such drains now filled up were found to be included in adjoining holdings, and, where these drains were shown during the last survey, it now appears that the Corporation has sold these lands, although some of them are laid with underground sewers, to the owners of the adjoining holdings under certain agreements. In those cases in which drains were not dealt with by the Corporation their inclusion was brought to the notice of the Commissioner of the Presidency Division, who ruled that where such inclusion exceeds 1 cottah they should be dealt with as separate holdings; while in other cases they should be included in the holdings in which these drains now filled up fall. A final comparison of all the khasra and khatians of the Northern and Southern Divisions received back from the Deputy Collector, Land Revenue, Calcutta, has been made to see that the holdings and municipal numbers as entered in the khasras agree with the maps; a note to that effect has been entered in each khasra.

61. The total number of boundary disputes dealt with during the revision of the town area has been 253 in the Northern Division, 266 in the Southern Division, and 153 in Sutanati; against these there were 23 appeals; the original orders were upheld in 21 cases, reversed in one and settled by arbitration in one. Of the total number of 672 cases, 31 cases arose on lodging of maps under section 20 of the Calcutta Survey Act (I of 1887), and the majority of these were raised by the Corporation laying claims to lands after having given sanction to build upon them. These cases had therefore to be given against the Corporation—at the same time the matter was referred to the Chairman.

62. The area calculation of the contained municipal holdings in the revenue holdings was completed and furnished to the Deputy Collector in charge Land Revenue Department, as funds were provided for the same

63. The fair maps of wards 4 to 18 lying within the town of Calcutta were completed and finally published during the last financial year, but those of wards 1, 2 and 3 were finally published during the current financial year: the delay was due to the maps having to be lodged for inspection under section 20 of the Calcutta Survey Act. By the time the objections raised had been finally disposed of and new boundary disputes raised and settled, there was not sufficient time left to finish off the colouring and final printing of the maps. The maps have since been coloured and distributed to all the Government officials requiring them.

64. The drawing of all the revenue maps was completed after awaiting the results of attestation: originally the revenue boundaries, etc., were to be surprinted *on the municipal* maps by blocks. Specimens of the maps were printed and accepted by the Deputy Collector, Land Revenue; but the Commissioner of the Presidency Division considered that this surprinting would not suit requirements, and he has condemned the procedure; the maps will now have to be redrawn on the same principal as the Panchannogram sheets, viz., in compact blocks, and not up to margin; sanction for this is awaited.

65. The wall maps of Districts I, II and III were completed and printed during the year, the Corporation taking 150 copies. Subsequently sanction has been obtained for the printing of another 50 copies for Government requirements, and the reproduction is being done in the Bengal Drawing Office; and copies will be distributed to Government officials very shortly.

66. Traverse work was carried out at first in the Maniktola Municipality, which comprised an area of about 2,256 acres; on its completion, and, as traversers were available, work in the Tollygunge Municipality was started; but as a portion of the municipality was surveyed (some on the 50-feet and some on the 32-inch scale in previous years) traverse work in this portion has not been taken in hand. The balance of the Tollygunge Municipality has been traversed, but some extra traverses may yet be required. The total area traversed is 4,101 acres, and, as this area, combined with that in Maniktola, is less than the 7 square miles required for detail survey, a portion of the South Suburban Municipality has been taken in hand and is in progress.

67. The revision survey of the area was budgeted for, but as no sanction has yet been obtained no work has been done; the survey is important, as numerous new roads and buildings have recently come into existence; unless these changes are shown, the Improvement Trust will be seriously hampered in its work.

68. On a requisition made by the Chairman of the Improvement Trust a special wall map of a portion of the Tollygunge Municipality on the scale of 16 inches to the mile surveyed during 1903-06 was prepared and made over to the Chairman at his cost. In addition a portion of Russa Road lying within Tollygunge has been surveyed in detail in advance at the Chairman's request; the maps of this area have been made over to the Chairman.

Tangra Char, District 24-Parganas.

(Mr. A. W. Smart in charc.)

69. At the request of the Collector of the district the revenue survey boundary (1850) between Tangra Char and Oroonagar, Shamnagar, Kistochandarpur, Damudarpur, Anandinagar, Ratannagar, Chak Dulapur, Anbullewpur and Jadhanagar was relaid. The work is connected with and in continuation of the demarcation of Ragafulla, 1910-11.

70. The sites of 45 pillars were fixed and marked temporarily, and the Collector will carry out the permanent demarcation.

71. In all 51 traverse stations were used in 8·7 miles of chaining; the length of boundary relaid was 3·25 miles.

72. Copies of the traverse data, offset field book and a 4-inch tracing of the boundary relaid have been sent to the Collector.

73. The cost of the survey has been debited to provincial funds.

Mohanpur Estate, District Khulna.

Mr. A. W. Smart in charge.

74. An area of 26 square miles, composing 10 villages, 9 of which lie in a compact block, was traversed for cadastral survey by the local staff in the same season. The survey was notified in Government notification No. 2963 L.R., dated 7th November 1911.

75. The isolated village was not connected with the main block as it lay at a considerable distance from it.

76. There were 44 miles of new chaining and 413 new theodolite stations; all these points were marked with wooden pegs. The trijunction stones will be put down by the local settlement staff.

77. The origin of survey was the intersection of Latitude 22° 30′ with Longitude 89° 30′, and the values of points were derived from the older traverse in the Faridpur and Bakarganj districts. The values assigned now have had the longitudinal correction for 2′-27″ ·18 applied to them.

Four azimuths were observed and used in the computations

78. The area falls on 32 16-inches sheets which were supplied to the Settlement Officer in ample time for his requirements.

79. The cost of the survey is to be met from private funds; the Collector has been reminded that these should already have been deposited in this treasury.

Burdwan and Nadia Districts.

Majsida Char Survey.

(Mr. A. W. Smart in charge.)

80. This survey embraced the comparing of existing chars in the Bhagirathi river and on its banks with the revenue survey maps of 1855-56. The char land falls between mauza Majsida in subdivision Kalna, of district Burdwan, and mauzas Dadupur, Kasiadanga, Jagarnathpur and Kurkuria, of district Nadia.

81. The sites for 132 pillars were fixed on the boundaries by the revenue survey, and the permanent marks will be embedded by the Collector's staff.

82. The work was connected with Kedapara Great Trigonometrical Station of the Calcutta Meridional Series.

83. One hundred and eighty-six traverse stations were used, and 28·3 miles of chaining were run to relay 6·5 miles of actual boundaries.

84. Copies of the traverse data, field books and of the 4-inch comparative map have been sent to the Collector.

85. The cost of the work has been debited to provincial funds.

Darjeeling Town Survey.

86. A detailed survey of Darjeeling has been undertaken by Colonel Crichton, under his immediate supervision. The work is in progress, and will be reported upon fully next year.

Darjeeling District.

Takdah Cantonment.

87. The survey of this cantonment has been undertaken by Colonel Crichton, under his personal supervision. The survey is in progress, and will be reported upon next year.

District Rangpur.

Arbitration Survey (Tagore and Kasimbazar Estates).

(Mr. O. E. C. Judd in charge.)

88. The work required was to lay down two boundaries fixed by arbitration by Mr. W. J. Reid, I.C.S., as Commissioner of Dacca. Both boundaries lay between the parganas of Bahirband and Patildaha.

89. It was found that some of the maps that occurred in the case were very inaccurate, and doubt existed as to their intention. Thus Mr. Reid's award was found to be difficult to locate, and the matter had to be referred to him, and this caused some delay and eventually a little confusion.

90. The first case entailed laying down the boundary between the revenue survey station T^3 (1855-56 survey), of village Sankahati of pargana Bahirband, and station G^4 of the same survey on the boundary of village Ujanbarail of pargana Patildaha.

91. The second portion of the dispute affected the boundary between village Chanipara of pargana Bahirband, and village Amtala of pargana Patildaha.

92. In the former case the boundary was demarcated temporarily and Mr. Reid's award completely dealt with.

93. In the second case there is some misunderstanding that is under discussion. The matter will be attended to next cold weather.

94. The cost of this work is met from private deposits.

95. On final completion, copies of the maps and data will be sent to the parties.

Rangpur-Cooch Behar Boundary.

(Mr. O. E. C. Judd in charge.)

96. This work was in continuation of that referred to in paragraph 155 of the Eastern Bengal and Assam report for 1910-11, when the boundary had been demarcated temporarily.

97. Positions for 11 permanent pillars were selected this year, and the marks, after construction, checked.

98. Copies of the offset field books, traverse data and of the comparative map from which the relaying was done have been supplied to the Collector of Rangpur and the Cooch Behar authorities.

99. The cost of the work is shared equally between the Cooch Behar state and provincial funds.

Chittagong Town Survey.

(Mr. O. E. C. Judd in charge.)

100. This operation was in continuation of that reported upon in paragraphs 97 to 101 in the Eastern Bengal and Assam report for 1910-11.

101. The detail survey was completed in June 1912 and the record of occupancy about two months later. There remain, however, some doubtful entries in the record-writing, which are to be dealt with at the next municipal reassessment.

102. The final mapping and area extraction will be completed in the cold weather of 1912-13, after which a full report on the whole operations will be compiled and submitted to Government.

Feni River Dispute.

Districts Noakhali and Chittagong.

103. This survey was to locate the revenue survey mid-stream position of the Feni river, between the Chakla-Roshonabad estate of Noakhali and the Chittagong district, a distance of about 2½ miles. Several attempts had been made locally to relay the boundary, but had been unsuccessful, and it was expected that we should adopt the methods used locally in finding the old boundary. The case is typical in that I often receive directions as to how to relay a boundary, and the directions are such as no survey officer could follow.

104. The boundary was relaid and marked as follows:—

Stone prisms 4 cubits long	...	...	13
Ditto 2 ditto	...	...	12
Dito 1½ ditto	...	...	35
Earthern pipes 1½ ditto	...	...	40
	Total marks	...	100

105. When the work was completed, the Collector of Chittagong challenged a portion of the boundary to the south-east of it, and correspondence regarding this point is still going on. There is nothing wrong with the relaying work, and the challenge cannot hold unless it is decided that at this point some other boundary is to be accepted.

106. The cost of the survey falls on the Maharaja of Tippera and Government (Provincial) in equal shares.

107. As soon as the question raised by the Collector of Chittagong is settled, the necessary records and maps will be supplied to the parties concerned.

Rajshahi-Murshidabad Diara.

(Mr. O. E. C. Judd in charge.)

108. With reference to a pending case between Government and the Murshidabad Zamindari Company in the Murshidabad Court, certain traversing was undertaken to find common points between the two old revenue surveys and the diara survey.

The necessary points have been located and the comparative maps required by the Collector of Rajshahi, as a basis of the map portion of his case, are under compilation.

109. The cost has been borne by provincial funds but it will eventually become a part of the costs of the case should Government succeed.

PART IV.—DRAWING OFFICE WORK.

110. The Drawing Office work for Bengal was partly done in the Bengal Drawing Office in Calcutta and partly in the Shillong Drawing Office. The orders that I have received from Government are to the effect that I am to adopt the system used by Colonel Crichton last year in reporting upon the Eastern Bengal work. I have tried to carry these orders out, but regret that, without great delay, I cannot do so, but will arrange for the necessary change next year.

To give an example of the difficulty of bringing our books to meet the large form adopted by Colonel Crichton, I may point out that during the year in the Shillong Drawing Office 6,512 Chittagong maps or traces were reproduced; these often include several reprints for one sheet or trace, and there are only 3,553 cadastral sheets in the whole of Chittagong; to find out exactly which of these have been duplicated will take a very long time. I may mention that attempts to make the required statement for Eastern Bengal for this report have greatly delayed its production. For the reasons given above I have separated the Western Bengal work from that of Eastern Bengal in this report.

Bengal Drawing Office.

Western Bengal Districts only.

(Mr. L. F. Berkeley in charge.)

111. The detailed figure of progress of the several sections of the office are given in Appendix III of this report.

112. No standard maps, traverse charts, Ganges diara maps, or thana trijunction marks, or district maps were produced during the year.

Work on these was confined to the Bihar and Orissa portion of the Drawing Office programme. For this reason columns 1 to 28 of the statement (Appendix III) of Colonel Crichton's last report have been omitted from this report.

113. The Reproduction, Map, Record and Badar sections need no comment, as they primarily existed for Bihar and Orissa work.

Shillong Drawing Office.

Eastern Bengal districts only.

(Mr. A. B. Smart in charge.)

114. *Reproduction section.*—Village maps were reproduced as shown in the table below :—

Districts.	Number of villages.	Number of sheets.	Number of copies printed.
Faridpur	520	955	183,814
Chittagong	1,860	6,512	30,832
Pabna	14	21	1,910
Mymensingh ...	306	328	24,875
Bogra	9	9	400
Dacca	4	4	1,000
Rajshahi	10	10	640
Bakarganj	25	63	8,218
Total ...	2,748	7,902	251,689
Assam districts ...	1,385	1,531	41,632
Miscellaneous and extra departments.	...	...	69,876
Eastern Bengal and Assam—Assam and Bengal.			
Grand Total ...	...	...	363,197

In previous years the outturn was as follows:—

	Copies.
1910-11	399,496
1909-10	168,910
1908-09	123,195

The decrease is due to two things—smaller average copy orders in this year than in last, and to the Settlement Department being behind its programme. In comparison, however, the actual amount of work done this year vastly exceeds that of last year. For the whole office, so far as cadastral maps are concerned, 9,433 sheets have been vandyked as against 3,731 last year.

115. There are two points in the above statement that require comment. First, the number of sheets dealt with in Chittagong covers reprints of old sheets or traces only, and in many cases two or more printings of the same sheet or trace in the same year. This is not economical, and it looks as if a new issue of cadastral reproduction of this district was urgently required. Secondly, the extra departmental work covers both Eastern Bengal and Assam, because most departments, until 1st April 1912, were joint for what is now a portion of a province and a whole administration. It is impossible to separate those figures between Bengal and Assam.

116. The section recovered Rs. 8,328-2-11 by book debits; its cost, exclusive of the General Section, was Rs. 35,411-14-8, to which must be added about Rs. 11,000 for the General Section.

Map Issue and Copying Section.

117. This section has been working on the same lines as were detailed in the last Eastern Bengal and Assam Survey Report.

118. Two hundred and fifty applications for copies of maps were received and 26 returned, as the original records, of which copies were required, were not in my custody. The total receipts during the year were Rs. 2,625-10-6, and the nominal expenditure was Rs. 1,695-9-1. Actually it was about Rs. 3,400 and the difference is accounted for by the transfer of labour from other sections to meet sudden and urgent demands. In future the actual expenditure will be kept quite separate. Enhanced rates for copying were sanctioned by the Board of Revenue during the year, and next year this section should recover its total cost.

Badar Section.

119. This section was abolished from the beginning of the year under report, but a certain number of badars continued to come in. The Director of Land Records has since arranged to stop this work, and the badars received will not be dealt with now. During the year the small amount of work done was carried out by the staff of other sections. There is one aspect of Badar Section work that will always exist—it is the enquiries received as to the positions of plots, and as this work can easily be done by other sections of the office, I do not propose therefore to suggest the maintenance of a separate section for such fluctuating and uncertain work.

Record Section.

120. During this year 1,262 cadastral maps were received for final lodging, and the total now in my custody for Bengal is 17,384 sheets.

CHAPTER III.

PART I.

Tours of the Directors of Surveys.

121. Colonel Crichton and I have been on tour steadily throughout the year and have inspected the different sections of our departments frequently.

My own touring was somewhat interrupted for some months by indifferent health.

122. Colonel Crichton and I have inspected the major cadastral work in our areas and reported upon it during the year.

PART II.

Services of Officers.

123. Captain A. H. Gwyn, I.A., officiating Deputy Superintendent, Survey of India, joined my department during the year. He has shown great keenness, and his services will be valuable to Government as soon as he has a little more experience of revenue survey work. In directions not complicated by the necessity for local knowledge, he has helped me a great deal.

124. The services of the following officers of the Provincial Service are specially brought to the notice of Government for the reasons given against the names:—

(i) Mr. R. B. Smart, who has done exceedingly well in charge of the Calcutta Surveys, which, as will be seen from this report, are exceedingly intricate.

(ii) Mr. A. W. Smart for his zeal and ability whilst in charge of the traverse work of Western Bengal and Bihar and Orissa. Mr. Smart acted for Colonel Crichton for a short period to the entire satisfaction of the latter.

(iii) Mr. T. Shaw, my Personal Assistant, for the help that he has given me and for the ability that he has displayed. Mr. Shaw's help has been invaluable to me.

(iv) Mr. L. F. Berkeley for his very efficient administration of the Bengal Drawing Office, Calcutta.

Three of the above officers have each rendered over 40 years' service to Government, and Mr. R. B. Smart's services run nearly to half a century. Before another annual report upon Bengal surveys is issued, it is expected that two of these officers will have retired finally, and this opportunity is taken therefore of drawing special attention to the fact that Bengal, in one of its smallest departments is served, and served well, by four officers of such long, good and faithful service.

125. Amongst the officers on the active list, the services of Mr. A. B. Smart, who is in charge of the Shillong Drawing Office, deserve special mention.

126. With one or two exceptions, all other officers of both departments have worked well.

127. The services of the Indian establishment will be brought to the notice of Government in a special communication.

I have the honour to be,

SIR,

Your most obedient servant,

F. C. HIRST, CAPT., I.A.,

Director of Surveys, Bengal and Assam.

APPENDIX I.

PART A.

Summary of outturn of work of Survey Units in Bengal in 1911-12.

[Petty surveys are omitted from this table.]

DISTRICT.	Number of villages.	Linear miles of chaining.	Number of new theodolite stations.	Number of azimuths.	Number of sub-traverses.
1	2	3	4	5	6
Midnapore	2,722	4,531	21,959	94	(a) 825
Mymensingh (uplands) ...	1,309	3,278	16,487	153	867
Mymensingh-Pabna (diara) ...	(b) 527	1,334	4,648	35	270
Dacca (uplands relaying) ...	149	548	1,371	...	56
Dacca (uplands new traverse)	751	3,544	20,490	90	1,165

(a) Includes 84 dispute sub-traverses.

(b) Either villages or diara blocks.

APPENDIX I.—PART B.

Statement of outturn and cost rates.

[Petty surveys are omitted from this table.]

DISTRICT AND ESTATE.	Description of work.	Estimated area to be dealt with in square miles.	Year of inception of operations.	AREA SURVEYED IN SQUARE MILES. During the year under report.	AREA SURVEYED IN SQUARE MILES. Total, including previous year.	COST RATE PER SQUARE MILE. During the year under report.	COST RATE PER SQUARE MILE. From the beginning to end of year under report.	Balance area remaining for survey.	Estimated cost of completing area in column 9.	Estimated final cost rate per square mile.	REMARKS.
1	2	3	4	5	6	7	8	9	10	11	12
Midnapore	Traverse ...	4,133	1,910	1,071	3,035	47	42	2,198	94,560	44	Control incidence high direct and rate 34's.
Mymensingh (upland)	Ditto ...	6,333	1,905	773	4,674	60·7	56·3	1,658	93,480	62·2	Rate, fair.
Mymensingh-Pabna diara.	Ditto ...			421							
Dacca (upland) ...	Relaying ...			100							
Ditto ...	Traverse ..	2,792	1,905	716	1,934	72·7	64·3	551	51,960	63·6	Rate high, because area difficult.
Jalpaiguri (tea gardens).	Ditto ...	198	1,911	198	198	...	...	...	...	...	Detail survey and traverse figure not separated.
	Total ...	13,456	...	3,279	5,833	...	...	...	245,400	..	

APPENDIX II—(BENGAL).

(EASTERN DIVISIONS.)

Statement of sums expended for the year ending 30th September 1912.

DISTRICT, ETC.	Description of work.	EXPENDITURE INCURRED DURING THE YEAR UNDER REPORT.				TOTAL EXPENDITURE FROM INCEPTION TO END OF THE YEAR UNDER REPORT.			
		Actual (direct charges).	Share of Director of Surveys pay and his office.	4 per cent. charges for instruments.	Total.	Actual (direct charges).	Share of Director of Surveys pay and his office.	4 per cent. charges for instruments.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Jalpaiguri	Traverse	15,579	2,970	...	18,549	15,579	2,970	...	18,549
Rajshahi	Ditto	9,719	1,568	...	11,287	66,960	13,729	...	80,689
Mymensingh	Ditto	42,434	7,917	...	50 351	2,19,522	39,915	2,856	2,62,273
Dacca	Ditto	37,762	7,296	...	44,954	75,698	15,114	...	90,812
Mymensingh—Pabna diara survey.	Ditto	17,978	3,429	...	21,407	17,978	3,429	...	21,407
Mymensingh—Copying of traverse tables.	Ditto	228	42	...	264	716	145	...	861
Mymensingh—Preliminary traverse of Rangpur-Hymensingh diara.	Ditto	1,095	208	...	1,303	1,095	208	...	1,303
Dacca—Relaying ...	Ditto	7,021	194	...	7,215	18,474	1,185	162	20,141
Do. Preliminary traverse of Dacca Tippera diara.	Ditto	405	77	...	482	405	77	...	482
Dacca-Madhupur jungle.	Ditto	10,628	2,027	...	12,655	10,628	2,027	...	12,655
Do. Preparation of comparative maps.	Ditto	816	155	...	971	816	155	..	971
Dacca and Tippera	Ditto	121	23	...	144	121	23	...	144
Rajshahi—Rajnagore and Wazirpur-Preparation of comparative maps.	Ditto	126	23	...	149	126	23	...	149
Bakarganj—Dakhin Shahazpur—Preparation of comparative maps.	Ditto	129	24	...	153	129	24	.	153
Bakarganj—Galachipa ...	Ditto	570	109	...	679	1,971	255	...	1,536
Maldo—3 annas Chandipur Estate.	Ditto	164	31	...	195	1,963	92	..	2,517
Chittagong Municipality ...	Ditto	10,977	2,744	...	13,721	15,322	4,150	...	19,381
Noakhali—Relaying of revenue survey boundary down Feni river.	Ditto	1,848	462	...	2,310	1,848	462	...	2,310
Rajshahi—Diara relaying work	Ditto	1,872	468	...	2,340	1,872	468	...	2,340
Rangpur—Relaying and reclamation by the Commissioner as arbitrator—parganas Fatlidaha and Baharband.	Ditto	1,377	459	...	1,836	1,377	459	...	1,836
Rangpur—Cooch Behar boundary.	Ditto	589	147	...	736	950	237	...	1,187
Bengal and Assam Drawing Office.	Record section ...	2,468	476	...	2,974	21,215	5,040	...	26,255
	Redar section ...	524	100	...	624	6,293	1,196	26	7,511
	Reproduction of village maps.	30,527	5,938	...	36,365	1,35,405	29,723	...	1,65,128
	Trans and injunction mark maps, etc.	3,702	723	...	4,425	14,725	3,150	...	17,892
	Map Issue and Copying sections.	101	19	...	120	893	173	...	1,066
	Total ...	1,02,849	37,810	...	2,39,359	6,61,751	1,54,477	5,038	7,21,227

WESTERN DIVISIONS.

Midnapore	Traverse	37,235	13,158	...	50,393	65,962	18,502	...	84,464
Burwan, Nadia, etc.	Ditto	300	140	...	440	300	140	...	440
24-Parganas (chars)	Relaying boundary.	331	130	...	461	331	130	...	491
Khulna	Traverse	1,021	350	...	1,371	1,021	350	...	1,371
	Redar	10	3	...	13				
	Map Records ...	297	108	...	397	Figures not yet separated from those of Bihar and Orissa.			
	Reproduction for attestation.	785	270	...	1,055				
	Reproduction for distribution and sale.	2,559	900	...	3,459				
Drawing Office	Burdwan Thak maps.	174	60	...	234	1,584	307	...	1,891
	Second map, 24-Parganas and Khulna.	431	150	...	581	1,027	255	...	1,282
	Total ...	43,266	15,281	...	58,527	...	...	...	...

APPENDIX III.

BEN

APPEN

OUTTURN OF BENGAL

Season

DISTRICT.	REPRODUCTION OF VILLAGE MAPS SECTION.									BAZAR SECTION.						
	Class of reproduction.	Season of survey, if any.	Previously supplied.		Supplied during the year.		Total to date		Complete or incomplete.	Bazars corrected in original maps.	Thana number entered and village number corrected in—		Head-man and adjoining village names corrected in—		Duplicate tracings made for Settlement Officers and others.	Prints of standard and district maps, and tracings made for various surveys and on other accounts.
			Sheets or maps.	Copies.	Sheets or maps.	Copies.	Sheets or maps.	Copies.			Tracing volumes.	Field books.	Villages.	Sheets.		
										Villages.	Villages.	Villages.	Villages.	Sheets.		
29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Bankura	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birbhum	Final ...	1900-10	...	...	209	(a) 29,038	209	(a) 29,038	Complete	14	...	...	...	...	...	...
Burdwan	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hooghly	Final ...	1907-11	39	2,370	63	(a) 3,041	102	(a) 5,411	Incomplete.	...	...	...	...	...	...	...
Howrah	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Midnapore ...	Final ...	...	1,494	58,971	...	(a) 48	1,494	(a) 59,019	...	...	...	...	...	...	...	...
	Attestation	...	...	...	1,318	2,503	1,318	(b) 2,503	Incomplete.	8	...	...	...	...	...	...
24-Parganas	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jessore	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Khulna	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhalkarguj	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bakarganj	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mymensingh	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangpur	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinajpur	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malda	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Murshidabad ...	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nadia	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cooch Behar	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darjeeling	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jalpaiguri	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sikkim	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hijili, now Midnapore and Balasore, Province of Bengal	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diara Survey ...	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rogra	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajshahi	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pabna	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tippera	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill Tippera ...	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Noakhali	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chittagong	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chittagong Hill Tracts.	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quasi-official and miscellaneous work.	.....	...	...	...	397	28,871	397	28,871	...	...	...	...	...	...	...	...
Calcutta Town, Suburbs maps Centre of reduction correction slips, etc.	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	457
	.....	...	...	...	26	543	26	543	...	...	...	...	...	...	...	...
	.....	...	...	...	2,052	64,108	...	...	...	22	...	...	...	...	...	457

GAL.

DIX III.

DRAWING OFFICE,

1911-19.

MAP RECORD SECTION.																						EXTRA DEPARTMENTAL WORKS.	
Original cadastral and topo maps.			Revenue Diara and Miscellaneous survey maps.			Traverse Volumes of all kinds.			Field books of all kinds.			Calcutta Survey fair maps.			Trans, Triangulation Index and other maps and traverse plots.			Tracos for reproduction.			Grand Total.	Copies supplied of revenue diara and other survey maps.	Maps compiled for officials and others.
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.			
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46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69
317	...	317	4	...	4	7	...	7	...	...	...	...	...	...	17	...	17	...	...	...	345	...	...
85	209	294	51	...	51	1	2	3	4	1	5	...	...	...	...	...	...	...	...	...	353	...	...
154	...	154	6	...	6	27	1	28	32	...	32	...	...	...	1	...	1	...	...	...	221	...	...
75	61	136	13	...	13	20	...	20	68	...	68	...	...	...	9	...	9	...	...	...	248	...	...
215	2	217	...	...	...	2	...	2	2	...	2	...	...	...	...	...	...	...	...	...	221	...	...
3,380	...	3,380	17	...	17	48	...	48	123	...	123	...	...	...	167	1	168	103	73	176	4,032	...	...
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631	...	631	45	...	45	15	...	15	26	...	26	1,619	304	3,183	10	2	12	...	...	...	2,700	...	...
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497	...	497	2	...	2	11	...	11	27	...	27	...	...	...	10	...	10	...	...	...	487	...	...
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295	...	295	30	...	30	9	...	9	9	...	9	...	...	...	17	...	17	266	...	266	621	...	...
1	...	1	37	...	37	3	...	3	2	...	2	...	...	...	7	...	7	...	...	...	49	...	...
...	...	...	6	...	6	14	...	14	23	...	23	...	...	...	...	...	...	...	...	...	43	...	...
306	...	306	71	...	71	10	5	15	17	...	17	...	...	...	4	...	4	212	...	212	767	...	...
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6,337	372	6,709	345	...	345	294	8	302	349	1	350	1,619	304	3,183	324	3	327	581	73	654	10,378	496	52

F. C. HIRST, CAPT., I.A.,
Director of Surveys, Bengal and Assam.

E

B S. Press—21-2-1913—3125.J—380—T. W. L.

REVENUE DEPARTMENT.

LAND REVENUE.

CALCUTTA, THE 24TH MARCH 1913.

RESOLUTION—No. 842 L.R.

READ—

The Survey and Settlement Reports for the year ending the 30th September, 1912.

THE reconstitution of the provinces took place in the middle of the year covered by these reports; but it was decided that the existing arrangements for the control of survey work, other than cadastral surveys which are carried out by the settlement staff, should continue as a temporary measure. Lieutenant-Colonel R. T. Crichton, C.I.E., who became Director of Surveys of Bihar and Orissa from the 1st April 1912, thus remained in charge of the operations in the Burdwan and Presidency Divisions (including Calcutta) and in the district of Darjeeling, while Captain F. C. Hirst continued to be Director of Surveys in Assam as well as in the remainder of this Presidency. The charge of the Settlement Department in the former province of Bengal was held by Mr. H. McPherson, I.C.S., from the beginning of the year up to the end of March 1912, when his services were transferred to Bihar and Orissa, and Mr. J. C. Jack, I.C.S., who was previously Director of Land Records in Eastern Bengal and Assam assumed charge of the same post in the Presidency of Bengal. The reports now submitted deal with the work done during the whole year in the Bengal Presidency.

2. Excluding large rivers, the total area of British territory in the Presidency is 73,394 square miles, of which 5,352 square miles are covered by reserved forests and 1,821 square miles are unsettled waste at the disposal of Government. The settled area comprises 66,221 square miles in 65,069 of which the Bengal Tenancy Act of 1885 is in force. After the partition of 1905, this Act was amended on somewhat different lines in Bengal and in Eastern Bengal and Assam. Most of the divergencies, however, relate to matters of a technical nature or of minor importance, and in some cases they are due to differences in the local conditions of the two parts of the Presidency. There is no indication that the present position has caused or is likely to cause any practical inconvenience. It has therefore been decided to defer the consolidation of the law until a general amendment of the Bengal Tenancy Act is undertaken, after fuller information has been collected in the course of the record-of-rights operations in regard to certain other matters of great importance on which an amendment of the Act has been suggested. Steps are, however, being taken to bring into line as far as possible the rules under the Act and in the Survey and Settlement Manuals.

3. Since the Tenancy Act was passed in 1885, small areas have from time to time been the subject of cadastral survey and record-of-rights operations at the instance of the Court of Wards or of private individuals. Chapter X of the Act has also been resorted to for the purposes of settlement of land revenue in temporarily-settled areas, including the district of Chittagong, where the operations lasted from 1888 to 1898. In the Presidency, as it now stands, the making of a survey and record-of-rights of districts for the benefit of landlords and tenants and of the general administration was inaugurated in Bakarganj in the year 1899, and has since been extended to the districts of Faridpur, Mymensingh, Dacca, Midnapore and Rajshahi, in all of which it is still in progress. A survey and the preparation of a record-of-rights are

also in progress in the district of Jalpaiguri, including the large Government estate known as the Western Duars, in which the operations will be followed by a resettlement of the land revenue. The areas in respect of which a record-of-rights has been prepared under the Bengal Tenancy Act aggregate 10,266 square miles, and those in which it is in course of preparation cover 12,608 square miles.

4. Traverse survey was carried on during the year in the districts of Mymensingh, Dacca, Jalpaiguri and Midnapore, the total outturn being 3,279 square miles. The traverse survey will be completed in Dacca and Jalpaiguri during the current season, but in Midnapore and Mymensingh it will probably go on till the end of 1913-14. Of miscellaneous surveys, the most important was the Calcutta survey, the main part of which has now been completed. No decision has however yet been come to on the difficult question of the maintenance of the maps and records. Owing to administrative changes in the Drawing Office work was carried out partly in the Bengal Drawing Office in Calcutta and partly in the Shillong Drawing Office.

5. The main work of the Settlement Department, so far as major operations financed from Imperial revenues are concerned, lay in the districts of Faridpur, Jalpaiguri, Dacca, Mymensingh, Midnapore and Birbhum. With a few exceptions, which have been satisfactorily explained, the programme for the year was carried out. In Faridpur, recovery of costs has begun with very satisfactory results, and the end of the operations is now in view, though the cyclone, which occurred last November and completely wrecked the settlement office, destroyed a large part of the cess revaluation records, and has given an unfortunate set-back to this part of the work. The printing of the record-of-rights, which was first undertaken in this district, has proved a complete success, and the Governor in Council is glad to learn of the satisfaction with which the people have received their printed extracts and of the value which they attach to them. The settlement of the district of Jalpaiguri is now nearing its final stage. Orders have been issued on the assessment proposals relating to the Western Duars and on various questions connected with the cess revaluation which is being carried out in connection with the preparation of the record-of-rights, and it is hoped that final publication will be completed for the whole district during the current year. In Mymensingh, good progress was made with field-work and attestation, and a good start has been made with the recovery of costs, but less than half the programme of final publication was carried out. Both in this district and in Dacca, the large number of applications for the partition of estates is causing serious delay in the completion of the record-of-rights, and the question whether it is practicable to undertake partitions in connection with ordinary settlement operations will have to be reconsidered in the light of the experience to be gained in the course of the current season. In Dacca, the work in Bikrampur, with its close cultivation and its population of 2,000 to the square mile, proved, as was anticipated, to be extraordinarily difficult, and the Settlement Officer and his staff are entitled to the greatest credit for their indomitable energy and perseverance, which enabled the programme to be successfully completed. In Midnapore, the first season's work was carried through in spite of the drawback of an untrained and inexperienced staff, but the main difficulties in connection with this settlement will not fully disclose themselves until the attestation stage. In Birbhum, it was found that the troublesome questions relating to the rents of the aboriginal tenants and their headmen could only be settled by a general rent settlement, on the basis of a table of rates applied to the careful soil classification which has been made; and with the sanction of the Governor-General in Council, the Settlement Officer has been vested with powers to settle rents under section 112 of the Bengal Tenancy Act. This work, which is now in progress, will, it is expected, be completed by August next.

6. The report of the Director of Land Records contains ample evidence of the need for a record-of-rights in all the areas in which the work is now in progress. These areas include tracts so diverse as the jungle mahals in Midnapore and Birbhum, with their illiterate and ignorant Santhal tenantry, and the Bikrampur pargana in Dacca, where it is not unusual for the ordinary cultivator to possess an annotated edition of the Tenancy Act. But disputes

and confusion in regard to agrarian relations are found everywhere, whether they arise from the ignorance of the cultivators and their inability to understand their rights, or from the complexity of the land tenures which have been created in a more advanced stage of civilisation. In either case, the preparation of a record-of-rights is the only measure which can effectually place the relations of landlord and tenant on a proper footing, either directly or by indicating the points on which the existing law is defective. The most important questions of the latter kind are probably those relating to produce rents. Throughout Northern and Eastern Bengal there are large classes of persons who cultivate land on what is termed the *barga* or *adhiar* system. It is often very difficult to decide whether they are labourers who receive a share in the crop as wages, or tenants who pay a share of the crop as rent, but in practice they are treated as possessing no higher status than that of tenants-at-will. The system is bad, not merely for the actual cultivators, but also for the country as a whole, since it leads to wasteful and improvident cultivation. The Director of Land Records reports that it is possible in a cursory glance over a cultivated plain to distinguish, by the comparative lightness of the crop, land held on *barga* terms from land held on ordinary tenancy. It seems clear that the existing provisions of the Bengal Tenancy Act on the subject of produce rents are inadequate, and it is probable that further legislation will eventually be necessary. The information at present available is not sufficient to furnish an adequate basis for legislation, but meanwhile the settlement operations are supplying information, which could be obtained in no other way, as to the character and extent of the evil and the nature of the remedy which is required. It is also gratifying to find that increasing use is being made of the record-of-rights by the courts and in the ordinary work of administration.

7. The cost-rates of the operations carried on in the Dacca and Rajshahi Divisions are high, but recent enquiries have clearly shown that, regard being had to the exceptional difficulties of survey and settlement work in Eastern Bengal and to the necessary improvements in procedure which have been introduced from time to time, the expenditure is not on the whole excessive. The present system of preparation of the estimates of cost and of accounting for the actual expenses is, however, defective, and arrangements are being made for the preparation of detailed estimates showing the work to be done and the establishment to be employed on it month by month, and for the submission of periodical returns of the work actually done and the expenditure actually incurred on each branch of work as compared with the corresponding programme and estimate of cost. Government will then be in a position to exercise a proper check over increases of expenditure due to improvements in procedure or failure to work up to programmes. Every effort is also being made to effect economies wherever they are possible without the sacrifice of efficiency. In this connection the Governor in Council notices with satisfaction that reforms were introduced in the districts of Faridpur, Jalpaiguri, Dacca and Mymensingh, which resulted in considerable reductions in the cost of certain items of work.

8. Minor operations supervised by District Officers were carried on in eleven districts, some having for their object the settlement of land revenue in Government or temporarily-settled estates, and the rest the preparation of records of rights in private estates. Fair progress, so far as the circumstances permitted, appears to have been made in all cases. Following the example set by the late Government of Eastern Bengal and Assam, this Government has placed all minor settlements, involving the employment of any special establishment, in the Burdwan and Presidency Divisions under the control of the Director of Land Records. At the instance of the Director, certain reforms in procedure have recently been approved, which are likely to result in an appreciable reduction of cost.

9. The thanks of the Governor in Council are due to Colonel Crichton, Captain Hirst and Mr. Jack for their able administration of the Survey and Settlement Departments during the year. Colonel Crichton will shortly sever his connection with the Survey Department in this province, where he will long be remembered as one of the chief founders of the system of revenue surveys now in force in north-east India. As Mr. Jack will shortly be

leaving his present post, His Excellency in Council desires to take this opportunity of placing on record his appreciation of the invaluable work which he has done during the last eight years as Settlement Officer and Director of Land Records. Mr. Jack's name will always be associated with the great reform involved in the scheme for the printing of the record-of-rights, which he was the first to propose and which he carried out in Faridpur with such distinguished success that it is now practically established as an integral part of the settlement procedure in this province. The thanks of Government are also due to Messrs. M. C. McAlpin, F. A. Sachse, J. A. Milligan, F. D. Ascoli, B. C. Prance, J. W. Nelson and W. H. Thomson whose arduous duties in connection with the larger settlements were performed with commendable tact and energy. His Excellency in Council has read with pleasure the concluding paragraphs of the two reports in which the valuable services rendered by many other officers have been brought to notice.

ORDER.—Ordered that this Resolution be published in the Gazette, and that a copy of it, with copies of the two reports, be submitted to the Government of India.

By order of the Governor in Council,

J. H. KERR,
Secretary to the Govt. of Bengal.

No. 843.

COPY, with copies of the two reports, forwarded to the Surveyor-General of India for information.

No. 844.

COPY, with a copy of the report of the Director of Surveys, forwarded to the Municipal Department of this Government for information.

No. 845.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government for information with special reference to paragraph 9 of the Resolution.

No. 905.

COPY forwarded to the Director of Land Records for information.

No. 906.

COPY forwarded to the Director of Surveys, Bengal and Assam, for information.

By order of the Governor in Council,

R. N. REID,
Under-Secy. to the Govt. of Bengal.

CALCUTTA,
The 24th March 1913.

B. S. Press—2-3-1913—6915C—556—J. L. C

ANNUAL REPORT

OF THE

SURVEY OPERATIONS IN BENGAL

(OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

1912-1913.

CALCUTTA:

THE BENGAL SECRETARIAT BOOK DEPOT.

1914.

Published at the BENGAL SECRETARIAT BOOK DEPÔT,
Writers' Buildings, Calcutta.

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INDEX TO CONTENTS.

PAGE.

CHAPTER I.

General remarks 1-4

CHAPTER II.

Rajshahi district Major Traverse work 4
Mymensingh ditto 5
Dacca ditto 5
Tippera ditto 6
Midnapore ditto 6
Miscellaneous surveys 6-9
Calcutta surveys 9-17

CHAPTER III.

Drawing Office work 17-18

CHAPTER IV.

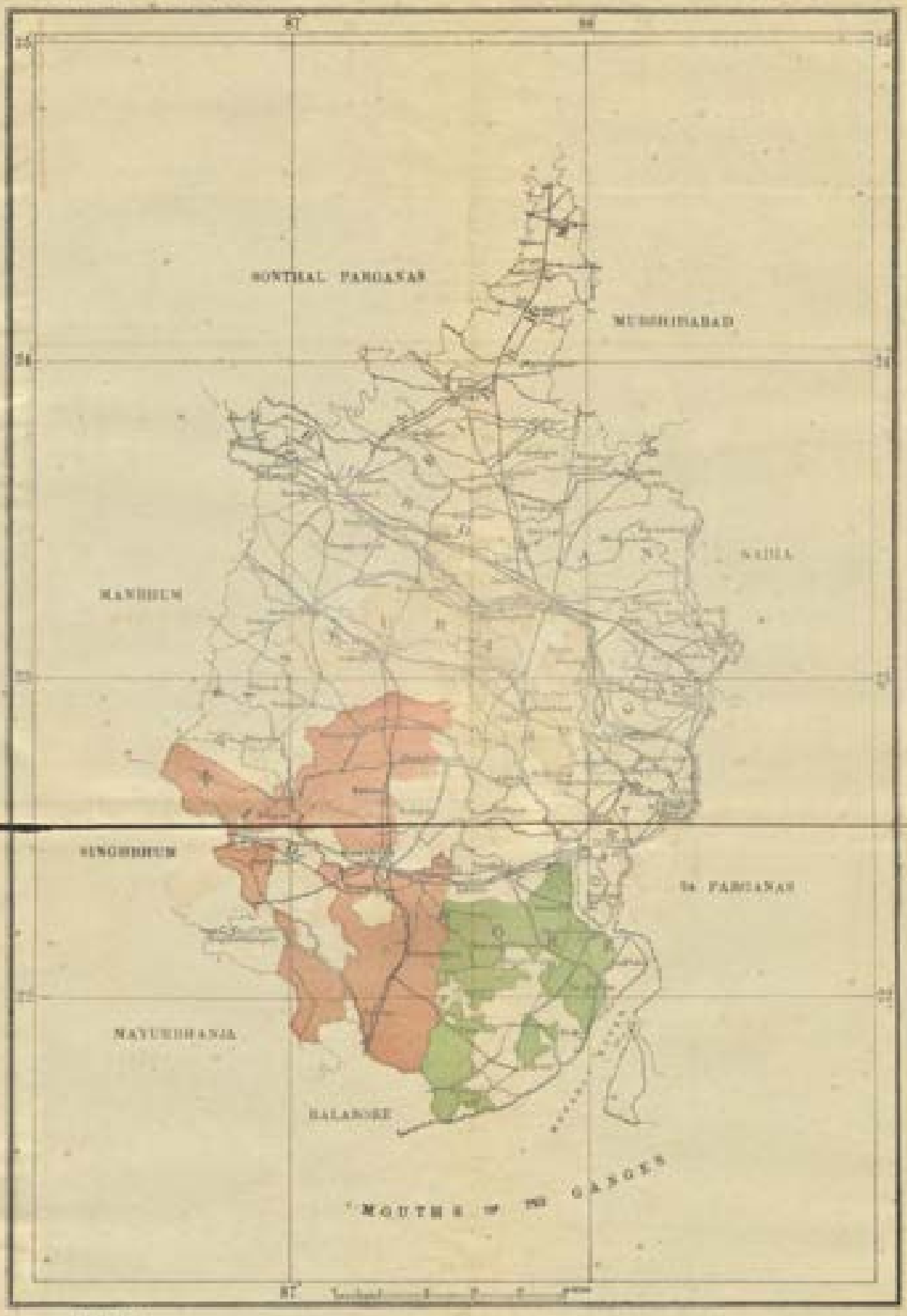
Tours of the Director of Surveys 18
Services of officers 19

APPENDICES . . . . . i-vii

PROGRESS OF MAJOR SETTLEMENT WORK

BURDWAN DIVISION

TO 30th SEPTEMBER 1978



REFERENCE

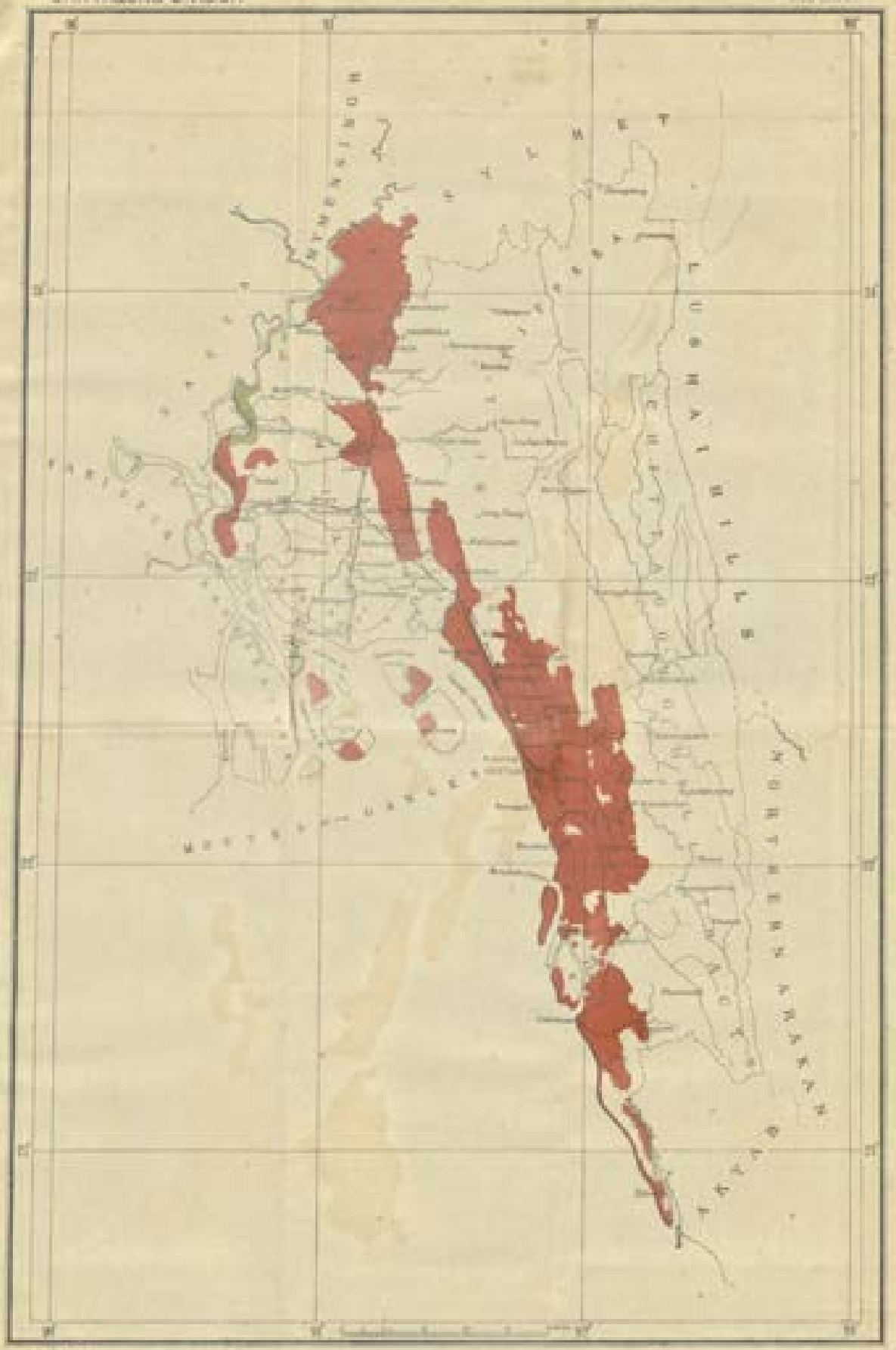
Previously Tackled

Tackled in 1978-79

PROGRESS OF MAJOR SETTLEMENT WORK

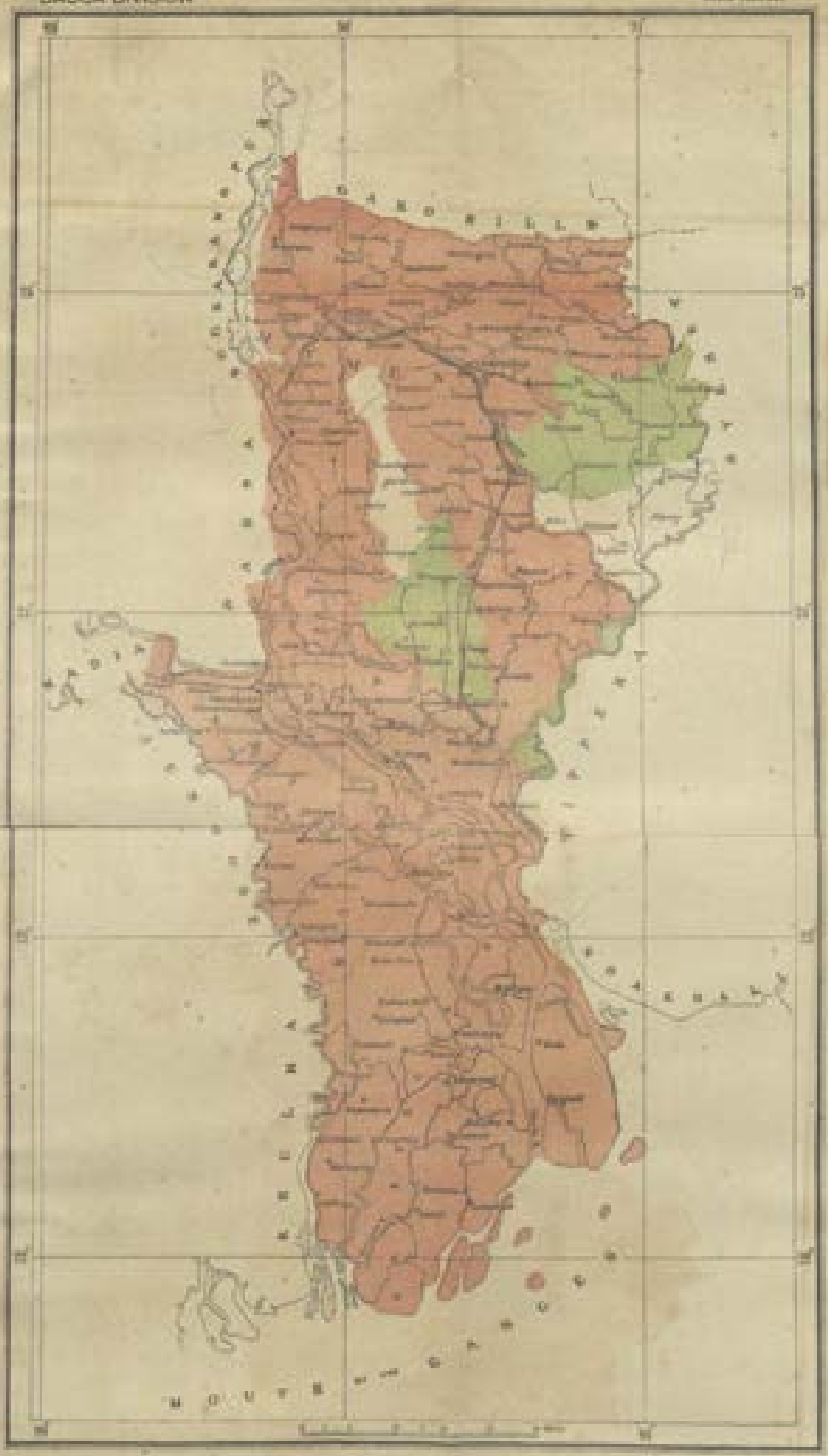
TO 30TH SEPTEMBER 1914

CHITTAGONG DIVISION



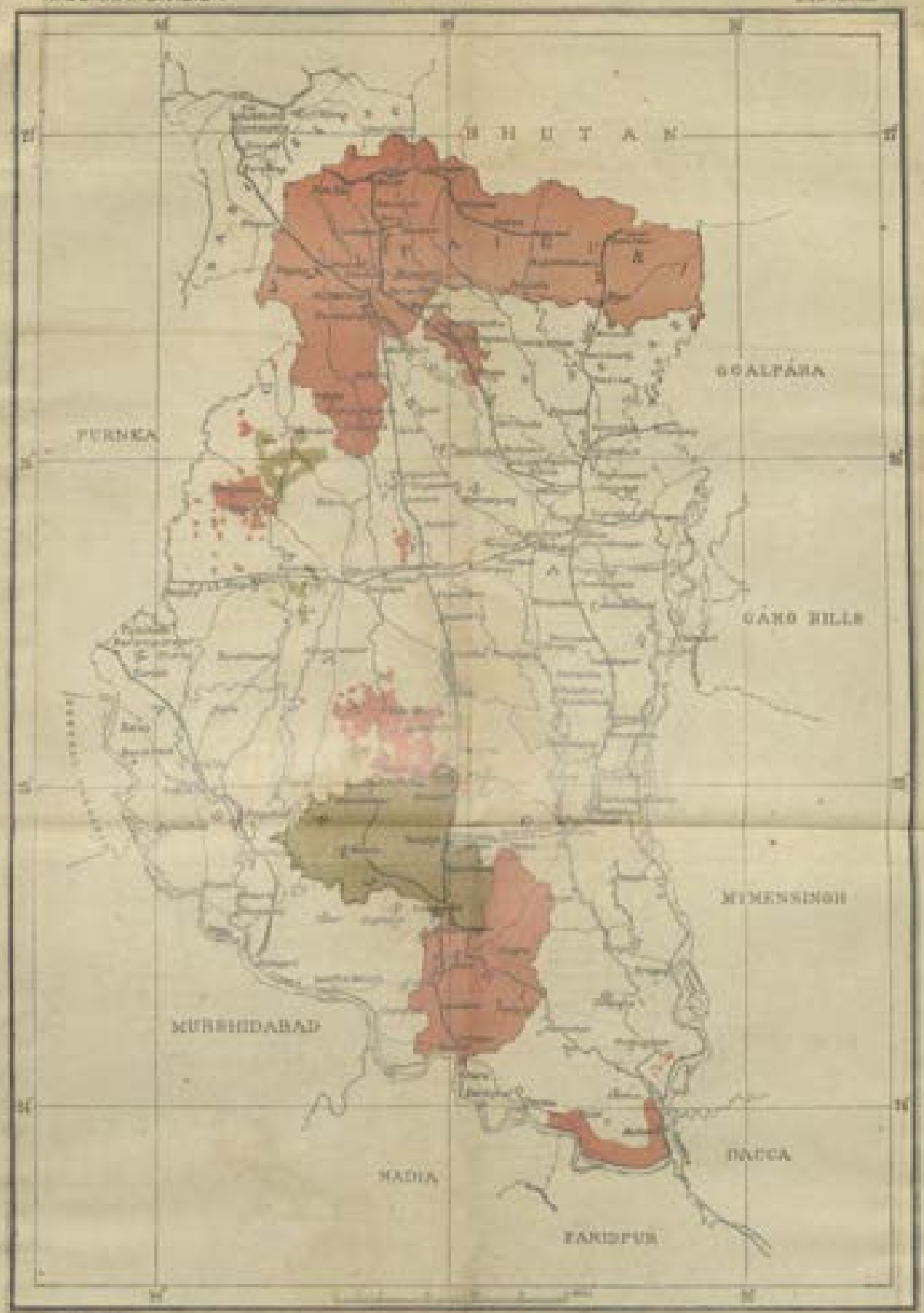
PROGRESS OF MAJOR SETTLEMENT WORK

DACCA DIVISION



PROGRESS OF MAJOR SETTLEMENT WORK

RAJSHAHI DIVISION



No. 226.

FROM MAJOR F. C. HIRST, I.A.,
Director of Surveys, Bengal and Assam,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 29th January 1914.

SIR,

I HAVE the honour to submit my report on the survey operations other than cadastral surveys, in Bengal, during the last survey year, viz., 1st October 1912 to 30th September 1913.

2. Lieutenant-Colonel R. T. Crichton, I.A., C.I.E., was in charge of the operations in West Bengal until the 20th March 1913, when he went home on leave; the West Bengal work was then transferred to my Department; thus I have been in charge of the whole operations for the year under report, except for the West Bengal work done between 1st October 1912 and 20th March 1913.

CHAPTER I.

General Remarks.

3. The outturn for the year, excluding linear and petty surveys, was 3,648 square miles. This area is slightly in excess of the average of the last few years for Western and Eastern Bengal.

4. The magnetic declinations given in this report refer to the year 1913 only, and they are given to the nearest 15 minutes. If more accurate values are required, they may be obtained from the Surveyor-General of India. In accordance with my custom for the last few years I circulated lists stating the declinations of the different districts of Bengal to all who might need them. For the first time the West Bengal districts were included in these lists.

5. It was decided, when the territorial changes were introduced on 1st April 1912, that the survey arrangements by which Colonel Crichton administered the surveys of West Bengal and Bihar and Orissa, and I, those of East Bengal and Assam, should remain in force for two years, but owing to the failure of Colonel Crichton's health, it was decided to cut the West Bengal districts adrift from Bihar and Orissa, and place that work in my hands from the date of Colonel Crichton's departure on leave (March 20th, 1913). Since then it has been decided to leave the Bengal and Assam surveys under my Department for two years from 1st April 1912, and it is understood that it will be decided, in the meantime, if this arrangement is to be permanent or not.

The inclusion of the West Bengal work in my Department, however, necessitated certain changes, because it was considered inadvisable to administer the West Bengal work from Shillong, and for Bengal Parties to recess so far from the general situation of their field-work. It was therefore arranged to amalgamate all the four Bengal Traverse Parties in one large Party and

to move my own office from Shillong. In addition, the miscellaneous survey work of Bengal was removed from the control of the No. 4 Party, Miscellaneous (which worked in Bengal as well as Assam), and placed under a specially organized miscellaneous section for Bengal. The old No. 4 Party, now the Assam Traverse Party, has its permanent headquarters in Shillong, and the headquarters of the other three sections have been moved to Calcutta, and located in 87 Park Street, which, it is interesting to note, was the office of the Surveyor-General of India for over half a century previous to 1883.

The Shillong Drawing Office was left in Shillong, pending a decision as to the future of Assam and Bengal Surveys generally. The arrangement is the only one possible, but it is very inconvenient, because the West Bengal records are now in Calcutta in the Bihar and Orissa Drawing Office, and those for the rest of the Province in Shillong. It is hoped that this arrangement will not last long.

Therefore, at the time of writing this report, the Department consists of the following sections:—

Joint Offices.

Director of Surveys' Office (Bengal and Assam) at Calcutta.
Drawing Office (Bengal and Assam) at Shillong.

Bengal Offices.

Bengal Traverse Party at Calcutta.
Bengal Miscellaneous Section at Calcutta.
Calcutta Surveys Offices, Alipore.

Assam Office.

Assam Party at Shillong.

To these will be added shortly a Survey School for teaching land surveying subjects and practical work near Comilla and a second for Assam near Gauhati.

This general rearrangement of the Department has involved a great deal of extra work for my office, my Personal Assistant and me. But, apart from Drawing Office questions, which have not been disturbed, we have obtained a satisfactory set of arrangements for both Provinces, and at the same time have ensured a basis of organization, which will admit of a divorce between Bengal and Assam Surveys, should it be decided upon, without serious disturbance of current work.

(6) The establishment of a Survey School at Comilla under my Department, as an experimental measure, for three years, was sanctioned in Government Order No. 1907 T.—R., dated the 21st July 1913. The site selected is that of an old city on the Mainamatti Hills about 3½ miles from Comilla. Initially the School is to take over the first year survey class of the Dacca School of Engineering; the second year class in that school is to be completed there this year, after which that school will be abolished. The future of the other Survey Schools of the Province is still under discussion.

As the new school is to be experimental, its initial cost has been rigidly curtailed. I hope that this may not affect the popularity of the school. But this risk cannot be helped since it is obvious that Government could not start a venture of this nature upon any but an experimental basis. The choice of site seems at first sight to be rather unfortunate. Sites all over Bengal were considered, but since the only suitable healthy ground that is available in Bengal for teaching land surveying, owing to prevailing physical conditions, must lie away from the centre of the Province, of necessity a site that is not central had to be selected.

The arrangements for the opening of the school are now practically complete.

7. During the year Government passed orders regarding the making of a new set of jurisdiction maps for the East Bengal districts. At the time of writing the question of extending the East Bengal system to West Bengal is under consideration.

The East Bengal scheme involves making accurate maps wherever major settlement surveys are in progress or have already been completed; this work embraces the accurate mapping of some 18,000 square miles of country. In other districts existing maps are to be improved and new issues made.

The progress made is given in the body of this report.

The question of accurate small scale maps made from cadastral detail is necessarily involved in that of making of preliminary 1-inch standard maps from the same detail. If Bengal had an Imperial Standard Mapping Section a considerable saving would occur in Provincial funds, which now bear all jurisdiction mapping charges, since the jurisdiction maps could be made direct from the preliminary standards.

The Surveyor-General of India has ruled that until the Standard Mapping work of Bihar and Orissa is completed, he will probably not be able to give Bengal its own section for this work.

For the present, then, Bengal labours under considerable disadvantages in its mapping work.

8. During the year Government has sanctioned a revised system of apportionment of costs between Imperial and Provincial revenues, and the necessary instructions are being issued in the form of brief rules. As some of the new rules will have retrospective effect, it will be necessary to recast my apportionment statements for about eight years past. This work is about to be taken in hand.

9. I have reduced this report considerably by tabulating the Drawing Office outturns on the system recently adopted by Colonel Crichton; I have also tabulated the traverse outturns to a far greater extent than has been done hitherto.

10. An experiment to introduce a system of traversing by squares instead of by village units was tried in the Dacca (Megna) Diara and also in the forest areas in the north of the Dacca district. The experiment is being reported upon specially by the Settlement Officer and me in a joint note, which will reach Government shortly. Although the experiment was not an unqualified success, it was by no means a failure

11. Large scale surveys in Calcutta and its neighbourhood have now been in progress for just over ten years. Upon taking over this work from Colonel Crichton I found it necessary to take stock of the whole position, particularly as it was proposed to make a large scale survey of Howrah, which covers about 10 square miles.

I have therefore drawn up a report upon the work of the last ten years and it is being submitted to Government. If Howrah is to be surveyed, I propose to modify the traverse methods used in the past very considerably.

12. Standards for checking the instruments ordinarily used by District Officers' survey staffs have been put down at Jalpaiguri, Dacca and Mymensingh.

Next year it is proposed to place them at Midnapore, Rampur Boalia, Noakhali and Comilla. The standards include a true north and south line, an accurately laid down chain, and the means of checking and correcting optical squares. The necessary building has been done by the Public Works Department upon plans made by me.

13. Captain C. W. Thompson, I. A., Assistant Superintendent of the Survey of India, was nominated during the year as second Assistant Director of Surveys, but he will not join until November 1913.

14. The much belated rules for marking boundaries, referred to in paragraph 8, page 4, of my Eastern Bengal and Assam Report for 1901-11, are about to be submitted to Government.

15. Owing to the considerable gaps that occur between the different Great Trigonometrical series in those parts of Bengal in which major traverse operations are now in progress, it has been decided to supplement the Great Trigonometrical work by scientifically run crinoline traverses, upon the system recently experimented with in the Punjab by the late No. 18 Party

of the Survey of India. I have issued the necessary rules for carrying out this work; a standard of accuracy of at least 1 : 5,000 is expected.

16. The miscellaneous work of the Department has increased greatly during the year. There is still a field for extension in petty surveys and court commission cases. A phase of the increase that is important, but which I find a heavy task, is the number of queries that are now coming in from District Officers and others regarding the value of maps that it is proposed to file in cases, and as to the possibility of comparing different types of maps made upon many systems, and at long recurring intervals of time. As a Department we have little to show, in outturn, in such cases. The increasing uses to which the Department is being put are very gratifying since they show that such developments as are being made follow useful lines.

17. Mr. Thomas Shaw has published a memorandum dealing with the question of making comparisons between old and new maps.

During the year also I published a book upon old Revenue Surveys, the first edition of which has already been sold out.

18. I beg to take this opportunity of expressing my thanks to Colonel Crichton for his kindness to me during the last 13 years, during which I have either been his Assistant, or have worked next door to him in a neighbouring Province. It is imposible to state how much I and my Department are indebted to Colonel Crichton for forbearance, help and co-operation.

As Colonel Crichton has now severed his connection with Local Surveys in this part of India this seems to be a fitting opportunity for showing that I am at least grateful to him.

19. My relations with the Settlement Department have been generally harmonious and I am indebted to the Director of Land Records and his Settlement Officers for much help and much hospitality.

20. The question of maintaining Technical advisers with the Major Settlements has been freely discussed during the year. It is probable that no serious modification of the existing system will be sanctioned by Government.

21. The attention of Government is drawn especially to paragraphs 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 25, 26, 33, 35, 39, 45, 65, 112, 113 and 114 of this report.

CHAPTER II.

Part I.—Reports on Surveys in temporarily-settled and Government estates under settlement of rents and land revenue.

Nil.

Part II.—Reports on Surveys in private estates.

Rajshahi District (Uplands).

Traverse Survey.

22. The traverse survey of this district was in continuation of that done in 1910-11.

23. Numerical details of the survey will be found in the Appendices at the end of this report.

24. The programme was completed, with the exception of 36 villages, which had to be revised. It was cheaper to leave this revision till next season than to prolong the field season. The Settlement Officer will suffer no inconvenience by this.

25. A feature of the area was the large number of villages that occur in it. In 860 square miles there are 2,037 mauzas. This caused a high

incidence of traverse stations to the square mile and delayed progress greatly. It is hoped that steps may be taken to prevent this waste of money by amalgamation of small villages being authorized. The Director of Land Records has agreed to see what he can do in this matter. At present the rules for this amalgamation in East Bengal districts give little or no relief at the traverse stage. The high cost rates in this district are due to the small average size of villages.

26. An innovation introduced this year was to make *mujmilis* of the area showing where the low lands lie. The Settlement Officer reports that these *mujmilis* are of great use to him. The experiment costs nothing, and will be used in all major traverse operations in future.

Mymensingh District—(Uplands.)

Traverse Survey.

27. The survey of the district was continued from last year.

28. Numerical details regarding this survey will be found in Appendix I.

29. The western half of the area traversed is high, but the eastern half is very low-lying indeed. Beyond the banks of *khals* and the artificial mounds that houses are built on, everything is submerged for the greater part of the year. These mounds sometimes rise 15 to 20 feet above the surrounding country.

It was not possible to start work anywhere in the low-lying areas before the middle of January, and those areas began to go under water again by the 15th April. Thus there was great difficulty in completing the programme.

Dacca District—(Up lands).

Traverse Survey.

30. The survey was in continuation of that reported upon last year.

31. Numerical details will be found in Appendix I.

32. In the area occur 96 square miles of the Madhupur jungle tract, which is an area of old alluvion rising to low hills, covered mostly with bastard *sál* and other wood.

Here the villages are large, nobody knows where the boundaries are, and cultivation is very scattered, since it is only possible in the depressions; those depressions are narrow, long and very winding.

The ordinary method of traversing would not have given the Settlement Office enough points for the cadastral survey, except at hopelessly exorbitant expense.

Last year I had experimented with square traversing in an adjoining similar area, and adopted it altogether in this 96 square miles.

Unfortunately the assistant on the spot failed to use his common sense, and instead of asking for an obviously necessary modification of those rules that I had issued he lost much time by attempted rigid adherence to them. As soon as this was known the system was altered slightly with quite good results, but in the meantime valuable time had been lost. The only alteration in the rules that was needed was to use slightly zig-zagged lines along the edges of squares, instead of straight lines which involved heavy cutting.

33. The result was that the party was out very late and 65 villages, which did not prove, were left over for revision next year.

In a sense this is a failure in programme, but I have decided that in future it will be best not to worry about leaving over a reasonable amount of revision work to the next year, because to leave it is the most economical course to adopt. The reason is that at the end of the field season, heat and the effects of several months' arduous work and exposure make revisions far more expensive than if they are dealt with when men are fresh. So long as the Settlement Officer's operations are not hindered, it is advisable to hold up some percentage of revisions of this type.

Dacca and Tippera Districts—(Diara lands).

Traverse Survey.

34. Statistical details of this area are given in Appendix I.

35. Out of 189 square miles traversed, 47 were dealt with experimentally on the square traverse system referred to in paragraph 10 of this report.

36. The 16-inch plots of the area were made over to the Settlement Officer for cadastral survey during the field season. I regret that a number of them were given very late. This was partly due to an experiment in square traversing being carried out in an area for cadastral survey during the same season. I had advised against such an area being experimented upon, but agreed to the experiment to avoid the delay that would have occurred, in the circumstances, if another area had been chosen.

Midnapore District—(Up lands).

Traverse Survey.

37. This work was in continuation of that of previous years.

38. The area traversed fell inside a block 1,571 square miles in extent. Of this 544 square miles had been traversed previously.

39. Much difficulty was experienced in finding and locating the traverse stations of the old scattered work. This delayed operations seriously, and the programme was not completed till June.

40. A few revisions have been held over till next field season.

41. About 968 square miles of this district remain for survey.

Part III. Miscellaneous Surveys.

Nepal—Darjeeling Boundary.

42. This work consisted of the marking of the positions of certain missing reference pillars on the Mechi river between Nepal and Darjeeling. It was sanctioned in the Government of Bengal's letter No. 782 A. (P. W. D.), dated 10th February 1913.

The work has been completed and the sites of the 20 reference pillars noted below fixed :—

1 (*a*)	1 (*b*)	16 (*c*)	33 (*c*)
33 (*e*)	54 (*a*)	54 (*b*)	55 (*a*)
55 (*b*)	61 (*g*)	62 (*c*)	70 (*c*)
87 (*a*)	87 (*b*)	90 (*a*)	90 (*b*)
92 (*c*)	92 (*d*)	93 (*c*)	118 (*e*)

43. Traces of the 4″ = 1 mile maps made have been sent to the Executive Engineer, Darjeeling Division.

44. Two days after the work was completed by Ganpat Rai, an excellent and experienced traverser, he died of cholera.

Cooch Behar Survey.

45. The Cooch Behar State, having decided to survey the State on the same principles as are now adopted in Bengal, asked the Bengal Government for help in certain matters connected with staff and advice.

The State wishes to follow the methods that are now accepted as the best available in this part of India—and perhaps in India—but naturally wished to carry out this work without foreign interference ; at the same time

the State wished to ensure a standard of accuracy equal to that attained in Bengal.

Some little help has been given to the State and some advice, and with the permission of the Bengal Government I have been privileged to visit and inspect the work as it progressed.

To me this work has been exceedingly interesting; I have been struck by two things in the State; first, the wish to do the work as well as possible, and the very ready acceptance of any suggestions that I have been able to make; and, secondly, the extraordinary *esprit de corps* that exists in the State, in that the officials with whom I have been in contact have gone out of their way to help me in every conceivable direction, whilst, unintentionally, they have shown an outsider how valuable absolute loyalty to the State is in the carrying out of His Highness the Maharaja's wishes. I mention the latter point, because I feel it to be a lesson to those of us who allow inter-departmental overlaps to interfere with our work in India.

46. On the lines on which the State is proceeding, it may be taken that the operations will result in excellent work.

District Pabna—(Scattered villages).

Traverse Survey.

47. At the request of the Settlement Officer of Mymensingh 19 villages, with an area of 15·4 square miles, were traversed. The villages were very scattered, and their connection with Great Trigonometrical work or previous traverse will probably be delayed until the Pabna district is taken up.

58. The area will be cadastrally surveyed by the Settlement Officer of Mymensingh next year.

District Rangpur.

Chanipara Arbitration Survey.

49. The work done is referred to in paragraph 91 of my last report.

50. The boundary has been laid down and marked with iron and *sâl* posts.

District Tippera.

Traverse of 12 scattered villages.

51. These villages were traversed at the request of the Director of Land Records.

The names and revenue survey numbers of the villages are as follows :—

Village No.	Names of villages.	Revenue Survey No.
1	Bakhernagar	859
2	Nabipur, 1st portion	852
3	Jaikalipur, 1st portion	851
4	Dukhi alia Gatkandi	846
5	Imam Nagar	849
6	Akanagar	848
7	Jainagar	850
8	Alinagar	855
9	Fattehpur	827
10	Hosheynpur	832
11	Asharabad	834
12	Pathamara	830

52. The work has been connected with main circuit 11 (*a*) of the Dacca Tippera Diara.

53. The 16" plots of the villages were supplied to the Collector of Tippera in February 1913.

Dinajpur District.

Traverse Survey of 60 square miles of private estates for the Collector of the district.

54. The lands for survey consisted of scattered villages and *chit* lands falling in four estates.

55. A great amount of connecting traversers had to be run, and the amount of help expected from the inhabitants failed badly.

56. The 16" plots were sent to the Collector of Dinajpur during the field season.

57. Details of this survey are given in Appendix I.

Tippera District.

Comilla Town Survey.

58. The town has been surveyed on the scale of 32" = 1 mile and occupancy records written.

59. The field traverse was completed by two traversers by 23rd December 1912, and the detail work and records on the 23rd July 1913.

60. The inking of the maps and extraction and entry of the areas are in hand and should be completed during December next, when all the papers will be handed over to the municipality.

61. Some statistical details of this survey are given in Appendix I.

Jalpaiguri Tea Garden Survey.

Traverse, Cadastral and Record work.

62. This work was referred to in paragraph 43 of my last report. The remaining programme was 46 gardens, comprising 203 square miles. These have been mapped on 224 sheets and simple records have been written.

Incidentally a considerable number of the traverse stations put down last year had been lost and had to be relaid.

63. Two of the staff died of black water fever, and Mr. Delaney, whilst inspecting, was bitten by a mad dog, and had to proceed to Kasauli.

64. The programme was completed by the end of April. It is expected that final completion of maps, area work, etc., will continue till the end of December, when the maps will be printed and supplied to the Planters concerned.

65. Considerable difficulty has been found in reconciling boundaries, which is a cause of delay. Until the boundaries are settled with certainty, the maps cannot be issued to the Planters.

66. The work has been checked by board plan, local and independent *partal*.

67. The Planters' Association has challenged the accuracy of one map made in 1911-12. I am enquiring into the case, and, if necessary, will resurvey the garden in question. During next cold weather Mr. Delaney will check the survey on the ground.

Other Petty Miscellaneous Survey.

68. In addition to much of the work already reported upon, the Miscellaneous Section, formed under Government Order No. 1107, dated the 11th April 1913, has carried out the following work :—

(i) Comparative maps (between old and new surveys), on 45 sheets, for about 600 square miles of the Dacca District, for the Settlement Officer of Dacca for work under Act IX of 1847.

(ii) Comparative maps of the Mymensingh Pabna Diara, on 56 sheets, for about 120 square miles. Only 5 sheets have been sent to the Settlement Officer, as work on the balance is in hand owing to the lack of theodolite work connections between the old Mymensingh and Pabna Revenue Surveys.

(iii) Making a comparative map for the Collector of Pabna on 1 sheet for an area of 12 square miles. The map has been handed over to the Collector of Pabna and was made in connection with a civil suit about Kodai Badla.

(iv) Comparative maps have been made to safeguard Government's interests from the map point of view, in a case between Government and the Midnapore Zamindari Company in the Rajshahi-Murshidabad District. These fall on 8 sheets and cover 130 square miles.

(v) Comparative and miscellaneous work connected with the Babupur-Wazirpur Diara case, in which I acted as Civil Court Commissioner, for the Subordinate Judge of Rampur Boalia.

(vi) Analytical work in connection with the *thakbast* maps and field-books of the Dacca Town, carried out at the request of the Settlement Officer of Dacca. This work has been suspended temporarily and will not be continued, if the methods now adopted by the Settlement Officer are successful in locating certain lost *chaks* of land.

(vii) Completion of the maps and records of the Chittagong Municipality. In this survey there are 79 sheets on the scale of 64″ to 1 mile and 11,042 plots.

(viii) Comparative maps made for the Collector of Mymensingh for the Echhapashow dispute case in which Government is interested.

(ix) The supply of certified copies, on payment, of revenue survey plans, to 60 applicants, for about 200 villages, the records of which were in my Calcutta offices at the time of application.

(x) Demands for advice or help in a considerable number of cases, which I had to refer to this section of the Department before being able to reply to Secretariat and other cases. This work cannot be detailed, but it is of an increasing nature, and must be useful, or the demand would fall instead of rising, as it appears to do.

Darjeeling Municipality.

69. Certain areas have been surveyed for the municipality on the 20″ 40″ and 60″ scales. The municipality has now asked that further work be done, and that an estimate be made for showing property limits on the maps already made. This work will be seen to next year.

Lebong Cantonment.

70. This Cantonment was surveyed on the scale of 20″ to 1 mile for the Surveyor-General.

Takdah Cantonment.

71. This Cantonment was surveyed on the scale of 20″ to 1 mile for the Surveyor-General.

Part IV. Calcutta Surveys.

72. During the year the work under report was carried out by Mr. R. B. Smart and was under the supervision of Lieutenant-Colonel R. T. Crichton, C.I.E., R.A., from 1st October to 21st March, when owing to the change of administration the supervision came under me.

73. The work of the year comprised the following items :—

(*a*) Calcutta Improvement Trust Survey :—

(*i*) Maniktola Municipality.
(*ii*) Tollygunge Municipality.
(*iii*) South Suburban Municipality.
(*iv*) Cossipore-Chitpur Municipality.

(*b*) Completion of the Calcutta Town Revenue Block maps.

(*c*) Making a comparative map of the boundaries as shown in the survey made in 1909-10 and that of Simms' Survey of 1847-49.

(*d*) Compiling notes of work done from 1903 to 1913 in and around Calcutta, so that a history of the operations for the last ten years can be written up.

Calcutta Improvement Trust Survey—(Maniktola Municipality).

Traverse Survey.

74. Most of the traverse work in this area was completed last year, but as a portion of the area was under water, when the last report was submitted, the necessary sub-traverses could not be run within the area; the sub-traverses were completed during the dry months of 1912. The traverses were connected on to the suburban area traverse, so that the origin of survey, viz., Ochterlony Monument, has been maintained for this area.

Detail Survey.

75. The detail survey of this municipality was continued up to about the middle of January 1913, as a portion of the country to the east is low-lying. The whole of this area is covered with gardens of all sorts and is heavily wooded; this caused delay in the detail survey. The total area surveyed this year is 960 acres or 1·5 square miles. There are in all 269 original field-maps, all of which were surveyed on the 50′ scale. Thirty-six amins were employed in the detail survey, but this number varied from time to time. Their average outturn was about 10 acres per mensem where the detail was heavy, and about 15 acres where the country was more open.

Demarcation.

76. The demarcation continued until April 1913. It is not possible to separate revenue work from municipal as both were done at the same time and by the same establishment. The unit has practically been the revenue holding, which is also the main municipal holding in the municipal registers, but each main holding is divided into minor municipal holdings, which are mostly of a temporary nature; the demarcation of these minor municipal holdings, which have no defined or recognized limits, has been left undone, and only those holdings within a revenue holding, where partition has been made and lands are owned by separate landlords (with a separate municipal number), have been shown. There are several revenue holdings that have been divided since the last survey (1870-71), the positions of the divisions of which are not shown on any of the Khas Mahal maps; several of these have municipal numbers, whilst several have none; the registered owners in Khas Mahal registers and those in the municipal registers are not the owners now; all such holdings have been difficult to identify when the lands are untenanted. Sixty-four such cases have been left undemarcated, until the attestation officer's work reveals the correct state of affairs. An attempt was made to locate this type of holding from the subdivision cases, but this was a hopeless task; for whilst there were sketches showing the holding the position of the holding with reference to the parent holding was incorrect. There were in all 1,216 revenue holdings, comprising 877 municipal holdings, demarcated in Grand Division 2 and its contained subdivisions, and 2,499 revenue holdings comprising 2,028 municipal holdings in Grand Division 3 and its contained subdivisions, the average area of a revenue holding being 1·5 bighas. Besides these there are 238 new holdings in Grand

Division 3 and 99 in Grand Division 2, representing roads, drains and other vacant areas which were not numbered in the 1870-71 survey; in all these, plots are either Khas Government property, or they are vested in the municipality; to prevent future claims to such lands, separate numbers have been given to them. In the area reported upon Government possesses certain lands known as canal surplus lands, but these lands form portions of the adjoining subdivision in which they lie, and, although a separate *khasra* has been prepared for these lands, they are treated as part and parcel of the respective subdivisions in which they lie. For the demarcation of the revenue and municipal holdings 1,115 notices were issued for Grand Division No. 2, and 2,213 for Grand Division No. 3. Besides these 469 notices were issued under section 50 of Act V of 1875, and each of these 469 cases had to be enquired into personally to ascertain the name of the owner and the number of the holding before the demarcation could be carried out; the delay under this head was great, as separate dates had to be fixed and separate amins deputed to do the demarcation work after personal enquiry by Mr. R. B. Smart. The outturn of a detail surveyor engaged in the demarcation work averaged 105 holdings per mensem.

Fair Maps.

77. The fair maps of the municipality may be said to be completed, there being only a few disputes in the area left for settlement in Grand Division 2; these ought to be decided by the end of October, a month after which, if no appeals are submitted, the areas will be notified under the Act, and the fair maps published during the financial year 1913-14. The area comprised in Grand Division 3 is ready for the Press and only awaits the printing of reference and conventional sign slips. The maps of the municipality have been supplied in skeleton to the Improvement Trust before the settlement of boundary disputes, as the maps were urgently required. There are in all 115 maps drawn up to margin from the original field maps. No maps on a smaller scale have been prepared.

Disputes.

78. There were 369 boundary and drain dispute cases. All these disputes have been disposed of by Babu Mallinath Roy, Sub-Deputy Collector of the Khas Mahal Department, 24-Parganas, The disposal of these disputes will now enable the publication of the fair maps which are being sent to the Bihar and Orissa Drawing Office to be vandyked. The work will be finished during the current financial year. Ten appeals were preferred, six of which have been dismissed, whilst the other four are under consideration.

Compilation of Khasras.

79. The Khasras have been compiled from the field data of that portion of Grand Division 3 which is situated in the Maniktola Municipality, and the records made over to the Collector of the 24-Parganas for attestation, but whether any action has been taken to verify entries is not known; anyhow no references have been made regarding any alteration of the maps. The fair copies of Grand Division 2 are ready awaiting decision of boundary disputes, when the area will be completed and records submitted to the Collector.

Calcutta Improvement Trust Survey—(Tollygunge Municipality).

Traverse Survey.

80. The traverse work in this area, although reported last season to have been completed, had to be amplified by extra sub-traverses during the year under report. After the completion of the traverse survey it was found, when the municipality was called upon to point out its boundaries, that three plots of land had been omitted, which have, however, been traversed as exterior blocks.

Detail Survey.

81. The detail survey of the Russa Road, which falls in this area, was started in July 1912, and was reported upon last year. After the completion of this work in September 1912 amins were employed upon the detail survey of the main municipality until March 1913; in July 1913 it was found that small tracts of the municipality had been omitted accidentally, and detail survey work was resumed in those tracts in August 1913. The limits of the municipality are so undefined that it is doubtful even now whether the whole area has been surveyed. The only map of the municipality that was available was a trace of certain village boundaries supposed to fall within the area, but no one was able to point out those boundaries on the ground; the fact that the subdivision of municipal circles is based upon the names of these villages made the survey difficult and the demarcation very difficult, indeed. The area of the municipality as surveyed on the scale of 50 feet to the inch is 1,920 acres; another portion of the municipality was surveyed on the scale of 32"=1 mile, and comprises certain subdivisions of the Panchannogram estate; what the correct limits of these are is not known exactly. Altogether 18 amins were employed in the detail survey of this municipality, and their average outturn per mensem has been about 13 acres when details were heavy, and about 23 acres when the country was more open. The number of field sheets surveyed in detail is 233.

Demarcation.

82. The demarcation work was started in March 1913, and, although it may be said to be completed, nevertheless claims are still being preferred to plots of lands, the owners of which during the time of demarcation could not be found; plots are now claimed by people who hold no municipal bills and there is no means of determining whether their claims are correct or not. For the demarcation copies of the demand registers of the municipality were taken, but they were absolutely useless, as the recorded names were mostly those of people who were tenants once, but are not now; the tenants on the ground are in very many cases sub-tenants of original tenants, and they have little or no idea of the names of the owners nor of the addresses of the owners. At the time of the detail survey lists were prepared as far as information could be got of the names and addresses of the owners of plots; according to these lists, notices were issued, but results were not satisfactory, many notices thus issued being returned unserved; further information then had to be obtained, and new notices issued. The total number of notices issued is 2,358 and the plots demarcated are 1,838, in addition to roads and drains, for which separate numbers have not been allotted in this area; several of these numbers include plots, the owners of which cannot be traced. The demand register of the municipality gives about 1,600 holdings. Besides notices to attend at the time of demarcation, 154 notices under section 50, Bengal Survey Act V of 1875, had to be issued, and after enquiry under that section the parties were ordered to attend at particular hours and dates and to complete the limits of their respective holdings. On endeavouring to locate the holdings by the numbers as given in the assessment register it was found that numerous holdings could not be identified, neither could the officers of the municipality point out the plots borne on the register; the result was that the numbers of holdings as given in the assessment register were discarded and a new set of numbers given to the plots demarcated. The numbers allotted by the municipality to the municipal holdings from which taxes are realised are not placed visibly on the holdings, nor are there any name plates for the roads inside the municipality. No register of any kind has been prepared for this area, either for the Improvement Trust or the municipality; neither have areas been extracted of any plots, since the Improvement Trust did not require them. In this municipality there are four plots of the Government Estate of Sahiban Bagicha and two subdivisions of Grand Division 6 of the Panchannogram Estate which had originally been surveyed on the scale of 32" to a mile, as also a very small portion of a third subdivision surveyed on 50' scale. The revenue

holdings in this area have been demarcated, and plot numbers given as well. The Collector has been asked whether he will require revenue maps of the above area together with the areas of holdings; that work will be done during the next financial year, if funds are provided for it. The average area of a plot as demarcated is a little over three bighas, and the average outturn of a surveyor engaged on demarcation was about 52 plots per mensem.

Fair Maps.

83. The fair map drawing of the area has only been done in skeleton, as there are several plots not completely demarcated; further delay arises from the fact that no orders have been received as to who is to settle the disputes which have cropped up; the publication of the maps will have to be delayed until the disputes are settled. There are 104 maps in this area.

Disputes.

84. One hundred dispute cases received up to date are pending disposal. A Deputy Collector has only just been appointed and will join after the Puja holidays, so the disputes will be forwarded for disposal after he joins the Collectorate.

Attestation.

85. Beyond two subdivisions of the Panchannogram Government Estate and a very small portion of a third, the rest of the area will have no attestation work; but as these subdivisions were originally surveyed on the 32′ scale, and as the Collector has asked for maps on the 50′ scale, no doubt the attestation of this area will have to be done in 1914-15 if the boundary disputes have been settled by then.

Calcutta Improvement Trust Survey—(South Suburban Municipality).

Traverse Survey.

86. The traverse work was gradually started in this municipality as reported last year, and was eventually in full swing by March 1913. The major portion of the work was finished about August 1913, when the staff was removed by degrees to Cossipore-Chitpur. There was no proper map to guide us, the only one available being a four-inch trace obtained from the municipality. Three main circuits comprising the whole area to be surveyed have been divided into 17 sub-circuits; the sub-circuits again have been divided into 109 blocks, through which there are 419 sub-traverses. The total linear measurements total 135 miles. At 2,178 stations the theodolite was set up. The stations have been marked by clay cylinders.

Detail Survey.

87. The detail survey was started in January 1913, and is still in progress. The lack of proper maps to guide the staff was greatly felt. A large tract on the west is very low-lying; in it the detail survey was barely completed when the heavy rains set in. The area surveyed in this municipality is 4,160 acres or 6·50 square miles. Thirty amins were engaged on the detail survey, and their average outturn has been practically the same as in the Tollygunge Municipality. As in the Tollygunge Municipality these amins had to obtain the names and addresses of the owners of each plot of land at the time of detail survey; this proved to be a very difficult task, as the major portion of the area comprised gardens and paddy fields with scattered houses; it was not therefore possible for the amins to obtain correct information. The area covers 382 original field maps which have been surveyed in detail on the 50-feet scale.

Demarcation.

88. The demarcation of this area was started in May 1913 and is still in progress ; there will be delay owing to the western portion being under water. Copies of the Demand Registers were obtained, but it was found that the registers were merely records of plots from which rates are recovered ; where these plots are located is not known ; and there are numerous holdings without any municipal numbers ; whether this area will have to be treated by renumbering all the plots remains to be seen. The work is not sufficiently advanced for any definite opinion to be expressed as to how the numbering of the plots is to be dealt with. The Demand Registers, like so many registers kept by municipal bodies, seem to contain any names but the correct ones, either of present owners or tenants. The basis under which the municipality has given the holding numbers is not understood. The numbers now in their Demand Registers are not given systematically and confined in circles or wards, but scattered irregularly over the whole area. The municipality is revising its numbering and the Chairman has promised to supply us with a trace and copy of the register to help in the final numbering. As this area is in an unfinished state few useful figures can be given, but up to date 3,338 notices have been issued, many of which have not been complied with each ; of these will necessitate further enquiries. Numerous difficulties are also met with in demarcating the holdings. As in Tollygunge there are no name plates of roads, etc., neither are there number plates affixed to holdings.

The area comprises certain zamindari taluks or estates the lands of which are not situated in compact blocks but scattered over the several villages in the area ; the zamindars seem to have no knowledge of how far the limits of their taluks extend ; further, they have in their books the names of those tenants directly under them from whom they realise certain annual rents, but they know little or nothing about the real boundaries of the lands leased out. Again, the tenants directly under the zamindars have leased out their lands by plots to sub-tenants, who are really in occupation and pay the municipal rates, if any rates are assessed. It is very difficult indeed to get from these sub-tenants the names and addresses of their superior landlords. In some cases the names of tenants recorded in the books of the zamindars are the names of old tenants who are either dead or have transferred their interest in the land to some other party. The zamindars do not recognise the present occupiers of their lands as their tenants and cannot even point out the lands without the help of the tenants, so notices have to be issued both to the zamindars and the tenants if a plot is to be demarcated.

Fair Maps.

89. The fair maps in this area have not been started yet as the area has not been completely demarcated.

Disputes.

90. Forty-seven disputes have been received up to date, but as the whole area has not been completely demarcated this number will no doubt increase. The disputes will be forwarded for disposal to the Deputy Collector who has just been appointed.

Attestation.

91. There will be no attestation in this area as no registers have been prepared, the Improvement Trust not requiring them.

Area calculation.

92. No plot areas will be extracted as the Improvement Trust does not require them.

Calcutta Improvement Trust Survey—(Cossipore-Chitpur Municipality.)

Traverse Survey.

93. Traverse work in this area commenced at the end of May 1913 when men could be spared from the South Suburban Municipality; by the end of August 1913 a full staff was employed. The bulk of the work was completed within the year under report, but as portions of the work are not finally proved and passed, two men have been retained for *partals* and to run extra sub-traverses which will be required by the detail surveyors. The area comprises certain subdivisions of Grand Division 1 of the Panchannogram Government Estate and has been divided into two main circuits, the Barrackpore Trunk Road lying between them. Main Circuit No. 1, which lies to the west of the area, is full of heavy details and has been divided into eleven sub-circuits following the limits of municipal roads; but Main Circuit No. 2, which is more open, has been divided into eight sub-circuits following the limits of the Panchannogram subdivisions. These sub-circuits have again been divided into 122 blocks containing 396 sub-traverses which will increase as the detail survey proceeds. The total linear measurements are not given as the computations have not been completed. Twenty-six azimuths were observed to check the angular work. The traverse work has been connected with the south end of the Great Trigonometrical Base situated on the Barrackpore Trunk Road. The traverse stations have been marked by clay cylinders, and the traverse measurements have been made by chains; angles were observed with 5-inch and 6-inch theodolites.

Detail Survey.

94. The detail survey work is only just being started as men become available from other areas. The area to be surveyed in the municipality is about 3·5 square miles, but according to the total original area which was budgetted for the Improvement Trust, viz., 14 square miles, it is found that on completing the survey of Cossipore-Chitpur Municipality the total area will come to 16 square miles; this may necessiate a further grant, and the matter is under consideration.

The total area surveyed for the Improvement Trust is—

Maniktola	...	...	3·50	sq. miles.
Tollygunge	...	...	3·00	„
South Subarbun	...	...	6·50	„
		Total	... 13·00	
		Area estimated for survey	... 14·00	

Balance 1 square mile to be surveyed in Cossipore-Chitpur Municipality; but the Chairman of the Improvement Trust requires the whole municipality to be completed, and as the estimated area of Cossipore-Chitpur is 3·50 square miles, the balance 2·50 will most probably require additional expenditure.

Demarcation.

95. The area being still under survey no demarcation has been carried out as yet.

Fair Maps.

96. The area will fall upon 105 fifty-foot sheets, none of which can be commenced until the detail survey progresses.

Miscellaneous.

97. The whole of the Cossipore-Chitpur area falls in the Panchannogram Government Estate, but Government has made no contribution as yet

towards the survey and demarcation of revenue holdings, or for the writing of records, etc. Provision for the demarcation of holdings and record-writing has been made in the 1914-15 budget.

Completion of the Calcutta Town Revenue Block Maps.

98. On sanction being obtained for the preparation of these maps on the same lines as the Panchannogram maps were prepared, work was started in October 1912 and the fair drawing and publishing of the maps of the Southern Division of the Town were gradually taken in hand and completed in May 1913. There are in all 108 sheets in this Division, and 25 copies of each sheet, including the inspection print, were printed; out of these 13 copies have been distributed to several Government officials and the rest stocked in the old Bengal Drawing Office (now Bihar and Orissa Drawing Office).

The drawing of the maps of the Northern Division was completed in August 1913 and inspection proofs were placed in the Corporation Office under section 20 of the Calcutta Survey Act, I of 1887, on the 10th September 1913; as they will have to remain for inspection for two months under the Act the printing of the final copies will not be started before the 20th November 1913. There are 115 maps in the Northern Division.

The comparative map of the boundary of Calcutta as shown in the survey made in 1909-10 and that of Simms' boundary surveyed in 1847-49.

99. This work has been completed in drawing, and the fair maps made are being vandyked. It was originally intended to reduce the 50′ maps to the 100′ scale and then transfer the boundary, as shown on Simms' maps; but it was found to be better to enlarge Simms' boundary and show it as closely as possibly on the 50′ maps; where differences occurred the intention of Simms' maps were considered. Along the river Hooghly no boundary limit is shown in Simms' map; apparently the then high bank was the limit according to Simms' maps, but he shows no boundary symbol along it; the old high bank has been shown in the map prepared and an explanatory note entered thereon.

Compiling notes of work done from 1903 to 1913 in and around Calcutta.

100. For the preparation of the history of the Calcutta Surveys from 1903 to 1913 copious notes have been prepared from old records and have been written up by me in a review upon the last ten years' large scale work in Calcutta. The manuscript will be submitted to Government shortly.

General remarks.

101. I took over the Calcutta Surveys in March 1913 from Colonel Crichton; his health was so bad that he was only able to pay one brief visit to the Calcutta Surveys Office with me. Then I became dependent upon his official correspondence cases, and upon Mr. R. B. Smart, for picking up the very complicated ropes of the several Calcutta Surveys cases.

I consider that I have not received that cordial help from Mr. R. B. Smart to which, as his supervising officer, I was entitled. I deeply regret to have to make this statement because of Mr. Smart's very long and faithful service to Government.

I find that Mr. Smart has gone as near placing himself in an independent position as the circumstances of the case permitted. Thus it occurred that although Colonel Crichton knew the full details of each case, and of its history, I was unable to obtain even a superficial grasp of the situation

without starting with the work from its initiation in 1903 and considering it and all its aspects for a period of about ten years. The necessary analysis, in view of Mr. Smart's incapacity or unwillingness to give me the details I asked for in an intelligent form, has given me a very great deal of unnecessary work.

CHAPTER III.

Drawing Office.

102. Numerical details of Drawing Office work are given in Appendix III. That Appendix contains West Bengal records for the Bihar and Orissa Drawing Office at Calcutta, as well as for Bengal and Assam work in the Shillong Drawing Office. I have included the Assam figures so as to obtain in one place a complete list of the records of my area that are in the Bihar and Orissa and Shillong Drawing Offices.

Reproduction Section.

103. The total output for the Shillong Drawing Office was 544,851 copies of maps, or 145,355 in excess of the output of any previous year. Of the above 476,841 were for the Settlement Department, 48,564 for Assam, and 19,446 for other Departments.

In the Bihar and Orissa Drawing Office 54,544 copies of maps were printed for West Bengal districts; the work upon 44,924 of these was done out of office hours. About 10,000 of these copies were for the Settlement Department.

The total output by the two offices for Bengal was 550,832 maps, a number of which were printed in colours.

Map Issue and Copying Section.

104. In my last report in (paragraph 118) I said that this section ought to support itself in the year now under review. This prediction has occurred.

In the Shillong Drawing Office, 354 applications for copies of plans were received against 250 in the previous year; 187 of these were disposed of and 48 transferred elsewhere, as the original volumes were not stored in the record room. The balance (119 applications) were not disposed of, either because the applicants have failed to deposit estimated costs, or because the applications are not in sufficient detail to permit of the identification of the work required.

Receipts amounted to Rs. 4,882-0-11, of which Rs. 4,802-15-11 belongs to Bengal; the actual cost of the work has been Rs. 4,340 approximately.

In the Bihar and Orissa Drawing Office the following work was done :—

	Amount recovered.			Actual cost.		
	Rs.	A.	P.	Rs.	A.	P.
269 copies of cadastral revenue and diara maps	1,329	11	2	1,011	15	6
103 traces for the Collector of Burdwan for a civil suit ...	143	0	0	143	0	0
Other miscellaneous work for other Departments, etc., including some fair drawing of index maps	3,851	11	2	3,851	11	2

The amount of work falling under this section is increasing considerably.

Jurisdiction Mapping Section.

105. Orders were passed by Government during the year upon the whole scheme of jurisdiction mapping, which has been pending for some time. No work under this head was done in the Bihar and Orissa Drawing Office.

In the Shillong Drawing Office, the old jurisdiction maps of Bogra, Chittagong, Dinajpur, Faridpur, Malda, Rajshahi and Rangpur are being revised, and are nearing completion. Existing roads and dâk bungalows, etc., and missing village names are being included and new maps will be issued shortly, which will suffice until cadastral surveys have covered these areas.

For Faridpur, the 4″ projected maps of thanas Faridpur and Gealundo have been printed. The 1″ reductions for these thanas are in hand.

In addition 6,671 copies of preliminary jurisdiction maps made by Settlement Officers were printed.

It is hoped now that final orders regarding jurisdiction mapping have been passed, next year will see great progress in this section.

Badar Section.

106. No badars were dealt with during the year in the Shillong Drawing Office, but in the Bihar and Orissa Drawing Office one badar of one village in district Hooghly, and 4 in Birbhum were dealt with.

Record Section.

107. For West Bengal 41 orginal cadastral maps were taken over finally by the Bihar and Orissa Drawing Office during the year. The total number of cadastral maps now in that office is 6,550.

In the Shillong Drawing Office 1,552 original cadastral maps were received during the year which now makes the total number of such maps racked in that office 11,601.

108. Very great inconvenience is felt in the records of the Province being kept partly in Shillong and partly in Calcutta.

General Remarks.

109. The total amounts recovered from the other Departments and from private persons during the year for all work done were Rs. 12,602-4-11 in the Shillong Drawing Office. Of this amount Rs. 9,116 is for Bengal work.

In the Bihar and Orissa Drawing Office recoveries amounted to about Rs. 7,000. Final figures are not at present available.

CHAPTER IV.

Part I. Tours of the Director of Surveys.

110. Owing to ill health Colonel Crichton was unable to do much touring. For several months he was under medical orders forbidding him to tour.

I was on tour more or less incessantly from the end of October 1912 until the end of August 1913 and even then had to leave Shillong twice before the close of the survey year. The circumstances of the year were unusual, and demanded an exceptional amount of touring.

111. I inspected all the East Bengal Major Settlement Surveys in the field, except Mymensingh ; and all in both East and West Bengal during the recess season.

I found the standard of the work satisfactory, but I consider the kanungo agency, as a class, not sufficiently highly trained in cadastral surveying.

Detailed rules to guide kanungos and amins are required in every settlement, and I hope that they will be provided in the near future.

Part II.

112. Captain A. H. Gwyn, I. A., First Assistant Director, was on leave during the hot weather. During the field season he did very good . . work, and took great interest in everything he did. I felt his loss during the recess season heavily.

113. The services of the following officers of the Provincial Service are specially brought to the notice of Government :—

Mr. Thomas Shaw, my Personal Assistant, for absolutely invaluable help in every direction and at any time, however inconvenient to himself.

Mr. A. W. Smart (since deceased after a service of well over 40 years' duration), Mr. N. Bedford and Mr. L. F. Berkeley, for work done on the Traverse and in the Drawing Office of West Bengal. Mr. A. W. Smart's death robbed Bengal of an officer who had served in North-East India since the present system of cadastral survey was started ; his experience was almost unique, and his capacity for work almost unrivalled. He died practically in harness, and his death deprived Colonel Crichton and me of a highly valued and respected friend.

Mr. A. B. Smart, for excellent work, in the face of constant ill-health, in charge of the Shillong Drawing Office.

Mr. C. A. O'Donel and Mr. P. F. Delaney, for good work in Bengal, Major Traverse and Miscellaneous work, respectively.

114. Two of my ministerial establishment have worked sufficiently hard and well to deserve notice here, viz., Rai Sahib Kundan Lal (Supervisor) and Babu Damodar Rao (my Office Superintendent).

115. The remaining officers, with two exceptions, have worked well. I despair of the exceptions ever being of much use to me.

I have the honour to be,

SIR,

Your most obedient Servant,

F. C. HIRST, MAJOR, I.A.,

Director of Surveys, Bengal and Assam.

APPENDIX I—PART A.

Statement showing particulars of each survey operation undertaken by the Bengal Traverse Party during the year ending 30th September 1913.

[Survey Department, Bengal and Assam.]

DESCRIPTION OF WORK.	Geographical limits of work.	Origin used.	Number of villages.	Lines or miles of chaining.	Number of new theodolite stations.	Number of azimuths observed.	Number of azimuths used.	Number of sub-traverses.	Number of village circuits.	Number of sub-circuits.	Number of main circuits.	MARKS USED.				Total number of latitica at which theodolite was set up.
												Old pillars.	Y-(direction marks.	Galvanized cylinders.	Pegs.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Rajshahi Traverse (upland).	Lat. 24° 29′ to 25° 09′ Long. 88° 30′ to 89° 12′	Lat. 24° 30′ 00″ Long. 88° 30′ 00″	2,037	4,161	22,164	192	170	973	2,037	16	4	...	8,928	1,061	17,175	23,164
Midnapur Traverse (upland).	Lat. 21° 35′ to 22° 25′ Long. 87° 20′ to 88° 15′	Lat. 22° 35′ 00″ Long. 87° 30′ 00″	1,907	4,008	25,237	140	120	627	1,907	20	8	179(a)	3,602	1,155(b)	20,301	25 237
Mymensingh Traverse (upland).	Lat. 24° 21′ to 24° 50′ Long. 90° 31′ to 91° 14′	Lat. 24° 30′ 00″ Long. 90° 30′ 00″	1,276	3,410	16,460	109	89	805	1,276	20	3	...	2,202	484	13,684	20,682
Dacca Traverse (uplands)			1,053	2,842	18,446	105	83	1,024	1,053	32	2	119	1,979	1,317	15,031	22,000
Dacca-Mukhalpur jungle (square system (Traverse).	Lat. 23° 40′ to 24° 18′ Long. 90° 01′ to 90° 30′	Lat. 24° 36′ 00″ Long. 90° 30′ 00″	...	561	4,472	...	...	337	106	...	...	...	...	...	4,472	5,346
Dacca-Tippera Diara (square system Traverse).	Lat. 23° 29′ to 23° 58′ Long. 90° 31′ to 90° 56′	Lat. 24° 36′ 00″ Long. 90° 30′ 00″	...	274	1,309	7	7	192	86	2	...	...	...	23	1,297	1,325
Dacca-Tippera Diara (ordinary system Traverse).			178	688	2,464	16	16	150	178	7	2	7	176	276	2,005	3,112
Pabna (scattered villages Traverse).	.....	Lat. 24° 36′ 00″ Long. 90° 30′ 00″	19	98	496	9	9	74	19	...	...	...	...	160	336	534
Dinajpur (scattered villages Traverse)	.....	Lat. 25° 30′ 00″ Long. 88° 30′ 00″	196	642	3,332	62	49	187	162	...	...	11	...	2,038	1,283	4,010
Tippera (scattered village Traverse).	.....	Lat. 23° 30′ 00″ Long. 91° 00′ 00″	12	44	189	3	2	11	12	...	...	...	...	72	117	233
Comilla Town Traverse ...	.....	Lat. 23° 25′ 00″ Long. 90° 25′ 00″	...	52	363	7	4	33	22	4	1	...	...	...	363	772

Statement showing particulars of each survey operation undertaken by the Bengal Traverse Party during the year ending 30th September 1913.

[Survey Department, Bengal and Assam.]

DESCRIPTION OF WORK.	AREA OF EACH THANA.						Total area dealt with in square miles.	Area for traverse areas season in square miles.	Area for traverse next season in square miles.	Number of triangulation stands.	Number of G. T. connections.	Average error in feet per mile.	Communication by roads (good or bad).	Magnetic declination.	Traverse data copied for Settlement Officer.	Maps used to guide Surveyor (state scale).	Health of establishment.	Work started on.	Work completed on.	REMARKS.
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Rajabhi Traverse (uplands).	Panchpur 105	Nangram 210	Munda 395	Mahadebpur, 170	...	...	880	...	892	2,415	4	6·5	Nil	E. 1° 00′	22-11-1912	R. S. of 1849-52	Good ...	15-11-1912	12-6-1913	Longitudinal correction has been applied to this work.
Midnapur Traverse (uplands).	Ezra 126 Ramnagar 50	Contai 19 Khajri 5	Potashpur 78 Nandigram 121	Bhagwanpur, 21 Sutahata 28	Mastanlapur 120 Sabang 219	Tamluk 138	1,027	...	929	2,312	3	5·9	...	E. 0° 30′	1-12-1913	R. S. of 1872-73	Do. ...	1-11-1912	26-6-1913	Longitudinal correction not applied. (2) Includes 176 country stones. (3) clay cylinders.
Mymensingh Traverse (uplands).	Nasdali 195	Kendua 228	Kishorganj 378	...	...	...	835	...	942	2,018	...	...	...	E. 1° 00′	1-12-1913	R. S. of 1854-57	Fair ...	15-11-1912	4-6-1913	Longitudinal correction applied.
Dacca Traverse (uplands)	Sabhar 329	Keraniganj 216	...	...	...	...	555	...	Nil	1,467	...	...	...	E. 0° 45′	16-12-1913	R. S. of 1859-60	Do. ...	10-11-1912	3-5-1913	
Dacca-Madhabpur jungle (square system Traverse).	Kapasia 23	Sabhar 35	Keraniganj 38	...	...	...	96	...	Nil	196	...	...	...	E. 0° 45′	16-12-1913	...	Do. ...	13-11-1912	25-5-1913	Longitudinal correction not applied.
Dacca-Tippera Diara (square system Traverse).	...	47	...	...	...	...	47	47	Nil	67	...	...	Nil	E. 0° 45′	16-12-1913	R. S. of 1859-60 and 1882-84	Do. ...	17-11-1912	15-3-1913	
Dacca-Tippera Diara (ordinary system Traverse.)	...	142	...	...	...	...	142	142	50	332	...	...	Nil	E. 0° 45′	16-12-1913		Do. ...	17-11-1912	15-3-1913	
Patna (scattered villages Traverse).	...	15·4 (Katchar.)	...	...	...	...	15·4	...	Nil	33	...	...	Nil	E. 0° 45′	1-12-1913	R. S. of 1854-57	Do. ...	1-6-1913	20-6-1913	Longitudinal correction applied.
Dinajpur (scattered villages Traverse).	Ranora 19·71	Patchim Shibpur 19·84	Dibi Gobindapur. 13·66	Bhalahat 11·00	...	...	60·41	60·41	Nil	195	8	12·64	Bad ...	E. 1° 00′	1-12-1913	R. S. of 1859-60	Bad ...	1-11-1912	28-2-1913	
Tippera (scattered villages Traverse).	...	6·79	...	...	...	...	6·79	6·79	Nil	18	...	...	Nil	E. 0° 30′	1-12-1913	R. S. of 1862-64	Good ...	16-11-1912	18-12-1912	
Comilla Town Traverse ...	...	4·14	...	...	...	...	4·14	4·14	Nil	32 to 1 mile 31.	...	...	Nil	E. 0° 30′	1-12-1913	Nil	Do. ...	17-11-1913	23-12-1912	

APPENDIX I—PART B.

Statement of outturn and cost rates.

[Survey Department, Bengal and Assam.]

DISTRICT AND ESTATE.	Description of work.	Estimated area to be dealt with.	Year of inception of operations.	AREA SURVEYED IN SQUARE MILES.		COST RATE PER SQUARE MILE.		Balance remaining for survey.	Estimated cost of completing area in column 9.	Estimated final cost rate per square mile.
				During the year under report.	Total, including previous year.	During the year under report.	From commencement of year under report.			
1	2	3	4	5	6	7	8	9	10	11
						Rs.	Rs.		Rs.	Rs.
Rajshahi (splands) ...	Traverse ...	2,617	1910	860	1,869	61·9	72·3	248	75,300	73·8
Midnapur (do.) ...	Ditto ...	4,133	1910	1,037	3,053	44·8	43·6	1,081	47,073	43·4
Dacca (do.) ...	Ditto ...	2,382	1905	651	2,382(a)	52·5	53·3	Nil	Nil	53·3
Dacca-Tippera (diara) ...	Ditto ...	300(b)	1913	189	189	54·7	54·7	111	6,071	54·7
Mymensingh (splands)...	Ditto ...	5,332	1905	825	5,502	66·	57·7	423	47,511	57·6

(a) Includes Dacca-Faridpur diara.
(b) Includes about 100 square miles of Tippera.

APPENDIX II—BENGAL.

Statement of sums expended for the year ending 30th September 1913.

District, etc.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charges.	Share of central.	4 per cent. for interest.	Total.	Direct charges.	Share of central.	4 per cent. for interest.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rajshahi	Traverse	44,936	6,875	...	51,811	1,14,825	29,675	...	1,22,500
,, relaying	Relaying	971	149	...	1,120	971	149	...	1,120
Mymensingh	Traverse	47,840	7,338	...	55,178	2,67,366	48,019	2,826	3,18,240
Dacca	Ditto	29,677	4,556	...	34,232	1,05,376	19,669	...	1,25,045
,, Madhupur jungle	Ditto	5,532	850	...	6,382	16,180	2,837	...	19,017
,, Moghon diara	Ditto	5,917	899	...	6,816	5,917	899	...	6,816
,, Square traversing	Ditto	3,059	465	...	3,524	3,059	465	...	3,524
Midnapore	Ditto	59,041	9,132	...	68,073	1,60,923	24,654	...	1,85,057
,, arrears	Ditto	2,469(a)	100	...	2,569	2,469	100	...	2,569
Jalpaiguri tea gardens	Ditto	14,272	2,195	...	16,467	29,351	5,165	...	35,016
Chittagong municipality	Traverse and records ...	960	150	...	1,110	16,202	4,309	...	20,511
Rangpur—Relaying and decision by the Commissioner as Arbitrator, parganas Patdaha and Baidrbund.	Traverse... ...	500	75	...	575	1,877	534	...	2,411
Rajshahi—Midnapore zamindari case	Ditto	1,296	195	...	1,491	1,296	195	...	1,491
,, Comparative maps of Midnapore zamindari case.	Mapping	415	63	...	478	415	63	...	478
Rajshahi, Bahapur, Wazirapur—Preparation of comparative maps.	Ditto	122	18	...	140	247	41	...	288
Rajshahi, Bahapur, Wazirapur disputes	Traverse	1,952	298	...	2,250	1,952	298	...	2,250
Mymensingh diara comparative maps	Mapping	386	58	...	444	386	58	...	444
Dacca Town Thakurai plots	Ditto	930	147	...	1,077	930	147	...	1,077
Dacca diara comparative maps	Ditto	2,922	450	...	3,442	2,922	450	...	3,442
Pabna scattered villages	Traverse	470	75	...	545	470	75	...	545
,, diara comparative maps	Mapping	400	60	...	460	400	60	...	460
,, Civil suit Kadalbadia comparative maps ...	Ditto	47	7	...	54	47	7	...	54
,, Comparative maps of Bethapasha and Sahebmanikr.	Ditto	67	11	...	78	67	11	...	78
Tippera—Survey of scattered villages	Traverse	780	120	...	900	780	120	...	900
Tippera—Comilla town survey	Ditto	6,805	1,051	...	7,856	6,804	1,051	...	7,855
Dinajpur batwara case	Ditto	3,148	473	...	3,621	3,148	473	...	3,621
Purchase of Captain Hirst's case on old maps ...	.....	2,850	...	...	2,850	2,850	...	...	2,850
Cost of Rennell's maps	.....	4,022	...	...	4,022	4,022	...	...	4,022
Darjeeling—Nepal boundary	Traverse	347(a)	14	...	361	347	14	...	361
Mymensingh—Jurisdiction maps	Mapping	350	53	...	403	350	53	...	403
Jalpaiguri ditto	Ditto	1,420	213	...	1,633	1,420	213	...	1,633
Rajshahi ditto	Ditto	644	97	...	741	644	97	...	741
Calcutta Improvement Trust survey	Traverse detail and demarcation.	28,910	8,983	...	37,893	79,326		...	79,326
Do. Government contribution on account of Manicktola survey for Improvement Trust.	Traverse and detail ...	4,650	698	...	5,348	8,539	Not available.	...	8,539
Calcutta—Government contribution for demarcation of revenue holdings in Manicktola.	Demarcation	5,129	769	...	5,898	6,370		...	6,370
Calcutta—Preparation of a skeleton index showing roads, etc., in Manicktola.	Mapping	50	8	...	58	50	8	...	58
Calcutta town Revenue maps	Ditto	4,918	80	...	5,028	6,213	Not available.	...	6,213
Do. Comparative maps of boundaries ...	Ditto	279	44	...	323	279	44	...	323

(1) Items marked (a) represent cost figures incurred by Director of Land Records, Bihar and Orissa.

DISTRICT, ETC.	Description of work.	EXPENDITURE INCURRED DURING THE YEAR UNDER REPORT.				TOTAL EXPENDITURE FROM INCEPTION TO END OF THE YEAR UNDER REPORT.			
		Direct charges.	Share of control.	4 per cent. for interest.	Total.	Direct charges.	Share of control.	4 per cent. for interest.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Calcutta—Printing of wall maps, Districts I, II and III for Government.	Mapping	58	9	...	67	58	9	...	67
Howrah Grand Trunk road maps	Ditto	468	71	...	539	609	Not available.	...	
Bengal and Assam Drawing office, Reproduction Section.	Record section	Record	2,476	363	...	2,779	24,221	6,453	...	29,634
	Thana and tehsildaree mark maps, etc. ...	Mapping	4,723	709	...	5,432	19,456	3,868	...	23,324
	Map issue and copying section	Ditto	609	91	...	700	1,502	264	...	1,766
	Faridpur—Reproduction of village maps, etc.	Reproduction	23,266	3,539	...	26,805		...	...	...
	Mymensingh—Reproduction of village maps, etc.	Ditto	10,330	1,642	...	11,972		...	...	...
	Jalpaiguri—Reproduction of village maps, etc.	Ditto	199	30	...	229		...	...	...
	Dacca—Reproduction of village maps, etc.	Ditto	3,614	543	...	4,157		...	...	...
	Rajshahi—Reproduction of village maps, etc.	Ditto	208	31	...	239		...	...	...
	Bakarganj—Reproduction of village maps, etc.	Ditto	3,497	525	...	4,022		...	...	...
	Bogra—Reproduction of village maps, etc.	Ditto	20	3	...	23	Separate figures not available.	...	...	...
	Chittagong—Reproduction of village maps, etc.	Ditto	2,699	405	...	3,104		...	...	...
	Dinajpur—Reproduction of village maps, etc.	Ditto	262	39	...	301		...	...	...
	Malda—Reproduction of village maps, etc.	Ditto	46	7	...	53		...	...	...
	Midnapore—Reproduction of village maps, etc.	Ditto	216	33	...	249		...	...	...
	Noakhali—Reproduction of village maps, etc.	Ditto	187	28	...	215		...	...	...
	Pabna Reproduction of village maps, etc.	Ditto	202	30	...	232		...	...	...
	Tippera—Reproduction of village maps, etc.	Ditto	79	12	...	91		...	...	...
Bihar and Orissa Drawing office.	Badars	.....	2(a)	...	...	2	5,696	...	...	5,696
	Map records	Records	319(a)	13	...	332	4,471	Not available.	...	4,171
	Reproduction for attestation	Reproduction	642(a)	26	...	...	41,122	...	...	45,148
	Ditto distribution and sale...	Ditto	107(a)	4	...	772		...	...	
	Printing of 211 maps of Khulna, 24-Parganas—Sundarbans.	Mapping	28(a)	1	...	29	1,055	...	...	1,355
	Reproduction of rough thana maps ...	Reproduction	20(a)	1	...	21	20	1	...	21
	Takdah computing, Darjeeling	.....	105(a)	4	...	109	105	4	...	109
	Burdwan—Cost in connection with the Damodar diara suit.	.....	143(a)	6	...	149	143	6	...	149
	TOTAL ...	.....	3,53,678	51,965	...	4,05,633	...	...	...	...

(1) Items marked (a) represent cost figures incurred by Director of Land Records, Bihar and Orissa.

APPEN

DRAWING OFFICE OUTTURN

Survey year

DISTRICTS.	REPRODUCTION SECTION.															
	VILLAGE MAPS.						Miscellaneous.		Triangu'ation charts.		Jurisdiction Maps 1" = 1 mile—Preliminary.		Jurisdiction Maps 4" = 1 mile.		District Maps.	
	Previously supplied.		Supplied during the year.		Total to date.											
	Sheets or maps.	Copies.	Sheets or maps.	Copies.	Sheets or maps.	Copies.	Supplied during the year.	Total to date.	Supplied during the year.	Total to date.	Supplied during the year.	Total to date.	Supplied during the year.	Total to date.	Supplied during the year.	Total to date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
BENGAL.																
Bakarganj	631	66,307	102	11,590	733	67 897	100	100	50	50	545	545	...	...	56	56
Bankura	...	...	...	...	...	...	...	...	...	...	190	190	...	...	59	59
Birbhum	309	29,628	20	4,350	329	33,388	...	...	...	...	140	140	...	...	...	...
Bogra	9	900	...	...	9	900	...	...	...	...	190	190	...	...	56	56
Burdwan	...	...	...	...	...	...	400	400	...	...	200	200	...	...	60	60
Calcutta	...	...	...	...	...	...	2,419	2,419	...	...	...	...	...	...	...	...
Chittagong	8,871	66,228	278	7,928	9,249	67,746	100	100	...	...	...	...	...	...	56	56
Dacca	13	5,880	469	79,554	482	85,434	780	780	50	50	1,222	1,222	...	...	56	56
Darjeeling	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinajpur	...	...	52	9,163	52	9,163	45	45	...	...	300	300	...	...	56	56
Faridpur	2,302	415,320	2,054	121,574	4,357	537,894	800	800	50	50	700	700	360	360	56	56
Hooghly	103	9,411	32	993	135	10,404	...	...	...	...	200	200	...	...	60	60
Howrah	...	...	...	...	...	...	200	200	...	...	180	180	...	...	59	59
Jalpaiguri	173	4,800	268	46,460	441	45,260	122	122	...	...	...	...	...	...	51	51
Jessore	...	...	...	...	...	...	...	...	...	...	250	250	...	...	60	60
Khulna	...	...	83	133	81	133	...	...	...	...	250	250	...	...	59	59
Malda	19	1,000	...	...	19	1,000	...	...	50	50	120	120	...	...	56	56
Midnapore ...	1,318	3,565	1,282	6,892	2,600	12,458	...	...	...	...	370	370	...	...	50	50
			300	2,271	900	4,271										
Murshidabad ...	...	...	29	104	29	104	255	255	...	...	280	280	...	...	59	59
Mymensingh	703	50,417	2,700	192,943	3,403	243,360	996	996	50	50	380	380	...	...	58	58
Nadia	...	...	...	...	...	...	...	...	...	...	250	250	...	...	59	59
Noakhali	...	...	51	3 672	51	3,672	...	...	...	...	...	...	...	...	56	56
Pabna	21	1,940	21	2,060	42	3,900	...	...	...	...	158	158	...	...	58	58
Rajshahi	17	2,260	7	2,300	24	4,060	1,082	1,082	50	50	470	470	...	...	56	56
Rangpur	...	...	...	...	...	...	10	10	...	...	...	...	...	...	58	58
Tippera	...	...	26	1,540	26	1,540	741	741	...	...	...	...	...	...	56	56
24-Parganas	...	...	...	...	...	...	...	...	...	...	390	390	...	...	59	59
Cooch Behar	...	...	...	...	...	...	2,180	2,180	50	50	...	...	...	...	...	...
Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gangra dists. included in districts—																
Bhagalpur ...																
Purnea ...																
Malda ...																
Rajshahi ...																
Nadia ...																
Murshidabad																
Pabna ...	Diara	Survey	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur ...																
Rajna ...																
Bakarganj																
Tippera ...																
Mymensingh ...																
Chittagong																
Noakhali ...																
Sikkim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hijili ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	14,405	824,961	8,613	496,312	23,018	3,111,272	10,530	10,530	350	350	6,671	6,671	360	360	1,309	1,309
ASSAM.																
Cachar	4	320	...	4	4	320	406	406	...	...	...	...	...	...	253	253
Darrang	190	9,128	5	75	195	9,203	190	190	...	...	...	...	...	...	153	153
Garo Hills	...	...	...	...	...	...	...	...	...	...	...	...	...	...	150	150
Goalpara	563	9,768	...	...	563	9,768	300	300	...	...	...	...	...	...	199	199
Kasarup	795	16,499	747	4,416	942	20,909	182	182	...	...	...	...	...	...	53	53
Khasi and Jaintia Hills	...	...	...	...	...	...	27,271	27,271	...	...	...	...	...	...	150	150
Lakhimpur	2,090	43,994	184	4,745	2,253	48,748	2,975	2,975	...	...	...	...	...	...	153	153
Lushai Hills ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50	50
Naga Hills	...	...	...	...	...	...	...	...	...	...	...	...	...	...	123	123
Nowgong	151	6,120	...	...	151	6,120	...	...	...	...	...	...	...	...	80	80
Sibsagar	73	2,910	...	...	73	2,910	1,547	1,547	...	...	...	...	...	...	...	...
Sylhet	239	24,200	180	4,350	424	28,550	1,501	1,501	...	...	...	...	...	...	73	73
	4,063	89,739	429	13,590	4,492	103,329	34,072	34,072	...	...	...	...	...	...	1,413	1,413

DIX III.

(CALCUTTA AND SHILLONG).

1912-13.

MAP RECORD AND ISSUE SECTION.

ORIGINAL CADASTRAL AND TOPO MAPS. Received. Previously.	Received. During year.	Total.	REVENUE DIARA AND TOPO MAPS. Received. Previously.	Received. During year.	Total.	Issued. Previously.	Issued. During year.	Total.	TRAVERSE VOLUMES OF ALL KINDS. Received. Previously.	Received. During year.	Total.	Issued. Previously.	Issued. During year.	Total.	FIELD BOOKS. Received. Previously.	Received. During year.	Total.	Calcutta Survey Fair maps. Previously.	During year.	Total.	Thana Triangulation, Index and Traverse plots. Previously.	During year.	Total.	Traces for reproduction. Previously.	Total.
Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.
19	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
5,708	135	6,903	11	1	12	...	...	...	65	...	66	...	7	7	61	...	61	...	...	...	29	...	29	2,272	2,272
517	...	517	4	...	4	...	...	...	7	...	7	...	...	...	...	...	...	...	...	...	17	...	17	...	...
291	20	311	51	...	51	...	...	...	3	...	3	...	...	...	5	...	5	6	...	6	...	...	...	...	...
284	9	293	14	...	14	...	...	...	3	...	3	...	...	...	3	...	3	3	...	3	...	...	...	181	181
154	...	154	6	...	6	...	...	...	28	1	29	...	...	...	32	2	34	...	...	...	1	2	3	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,182	19	2,201	...	...	...	...	...
3,253	...	3,253	29	1	30	...	...	...	41	1	42	...	...	...	60	...	60	...	...	...	30	...	30	3,298	3,298
...	485	485	4	1	5	...	3	3	17	...	17	...	6	6	75	...	75	...	...	...	29	...	29	...	...
900	...	900	11	...	11	...	...	...	13	3	16	...	...	...	17	3	20	...	...	...	4	3	7	312	312
942	53	994	18	1	19	...	...	...	30	...	30	...	...	...	7	...	7	...	...	...	...	...	...	...	...
1,938	2,175	4,073	6	2	8	...	...	...	28	1	29	...	...	...	27	...	27	...	...	...	28	...	28	...	...
126	21	197	19	...	19	...	...	...	29	...	29	...	...	...	68	...	68	...	...	...	9	...	9	...	...
217	...	217	...	...	...	...	...	...	2	...	2	...	...	...	2	...	2	...	...	...	...	...	...	...	...
1,722	388	2,110	12	1	13	1	...	1	46	...	46	...	...	...	90	...	90	...	...	...	17	...	17	...	...
...	...	...	16	...	16	...	...	...	33	...	33	...	...	...	3	...	3	...	...	...	...	...	...	...	...
437	...	437	2	...	2	...	...	...	12	1	13	...	...	...	27	2	29	...	...	...	16	...	16	...	...
173	...	173	25	...	25	1	4	5	6	...	6	...	1	1	2	...	2	...	...	...	10	...	10	...	...
3,600	1,141	3,600	17	...	17	...	...	...	48	11	59	...	...	...	127	29	142	...	...	...	108	38	146	176	176
255	...	255	30	...	30	2	2	4	5	...	5	...	...	...	...	...	...	...	...	...	17	...	17	266	266
968	2,796	3,764	20	1	21	...	42	42	43	1	44	8	12	20	39	...	39	...	...	...	4	...	4	...	...
1	...	1	37	...	37	...	...	...	3	...	3	...	...	...	2	...	2	...	...	...	2	9	9	...	...
642	10	652	4	1	5	...	4	4	14	...	14	...	6	6	3	...	3	...	...	...	...	...	...	90	90
11	13	24	26	...	27	...	17	17	2	...	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...
...	7	7	31	1	32	4	33	37	4	...	4	2	...	2	1	...	1	...	...	...	...	...	...	...	...
...	...	...	17	1	18	...	...	...	16	...	16	...	...	...	7	...	7	...	...	...	21	...	21	...	...
1,813	30	1,843	17	1	18	3	...	3	29	...	29	3	...	3	18	...	18	...	...	...	...	...	...	...	...
421	...	421	43	...	43	...	...	...	15	2	17	...	...	...	28	2	28	...	...	...	19	2	14	...	...
...	...	...	8	...	8	...	...	...	29	...	29	...	...	...	23	...	23	...	...	...	...	...	...	...	...
...	...	...	4	...	4	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	23	...	23	...	9	9	42	...	42	2	7	9	72	...	72	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	...	2	...	...	...	...	...	...	...	...
...	...	...	8	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22,593	7,814	31,307	531	14	595	11	116	127	599	21	620	21	47	68	803	29	832	2,182	19	2,201	352	47	400	6,695	6,695
1,350	...	1,350	10	3	13	...	...	...	32	...	32	...	...	...	17	...	17	...	...	...	...	...	...	...	...
1,172	...	1,172	9	1	10	...	...	...	32	...	32	1	1	2	37	...	37	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
373	8	387	9	2	11	2	...	2	21	...	21	...	...	...	26	...	26	...	...	...	...	...	...	...	...
9,355	257	9,565	7	1	8	...	...	...	19	...	19	3	3	6	37	...	37	...	...	...	...	...	...	...	...
...	...	...	3	...	3	...	...	...	1	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...
1,337	192	1,529	21	2	23	...	...	...	19	...	19	2	...	2	23	...	23	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	6	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,813	...	1,813	6	4	10	...	...	...	14	...	14	...	...	...	24	...	24	...	...	...	...	...	...	...	...
2,101	23	2,124	14	2	16	2	...	2	29	3	32	2	2	4	29	...	29	...	...	...	...	...	...	...	...
...	1,103	1,103	3	4	9	...	4	4	63	...	63	3	3	6	30	...	30	...	...	...	17	17	...	...	...
10,049	1,666	11,401	87	16	103	4	4	8	336	...	336	8	7	15	224	...	224	...	...	...	...	17	17	...	...

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REPORTS

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE YEAR ENDING

30TH SEPTEMBER 1913.

CALCUTTA:

THE BENGAL SECRETARIAT BOOK DEPÔT

1914.

[Maximum limit, 30 pages.]

REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS, BENGAL.

TABLE OF CONTENTS.

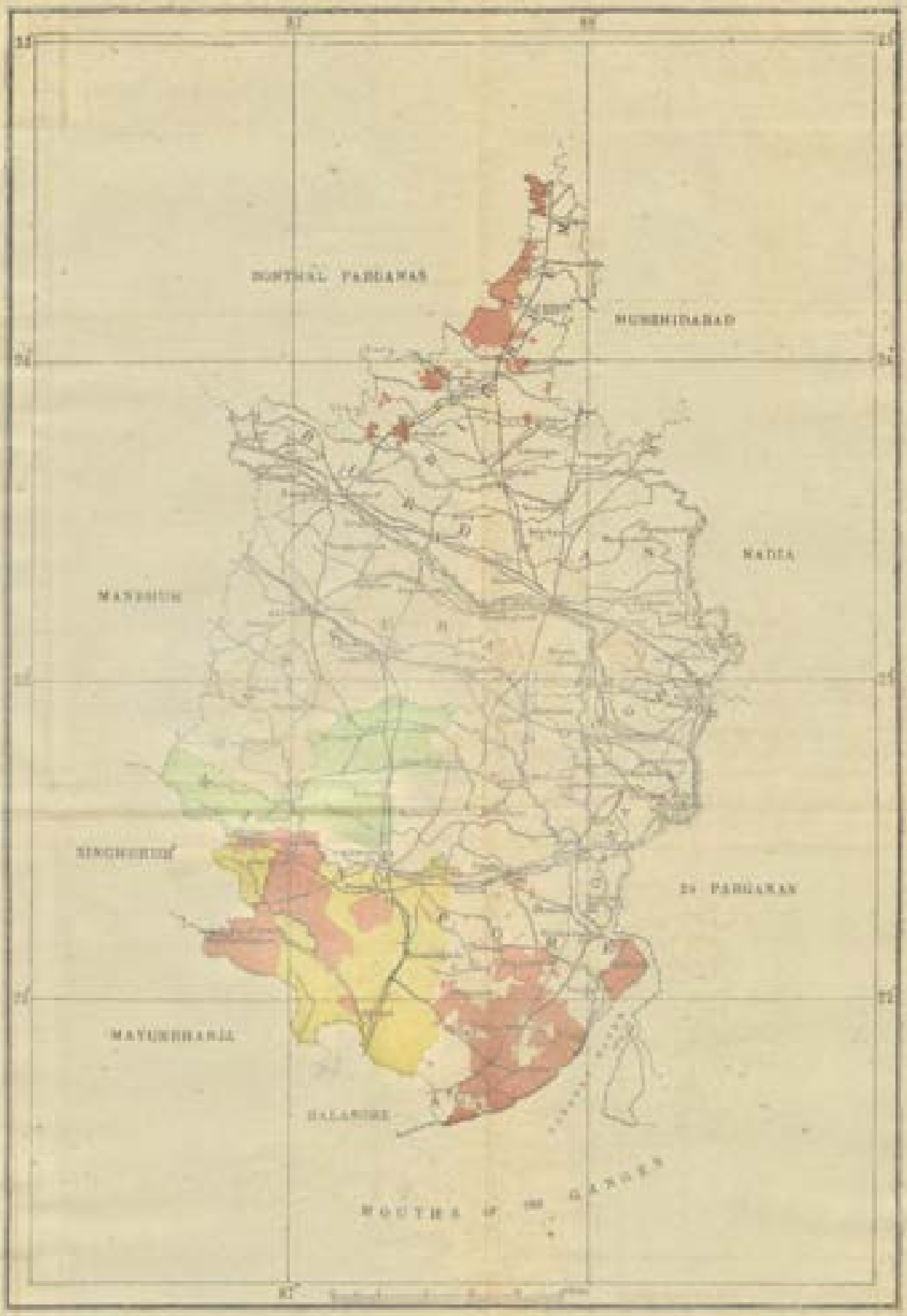
	Para.	Page.
Preamble	1—3	1
Introductory	4	1
PART I.		
Major operations	2—66	2—19
Minor operations	67—83	19—23
PART II.		
Transfer of control of petty settlements in West Bengal to the Director	84	23
Transfer of the administrative powers of the Board to Government	85	23
Amalgamation of procedure	86	23
Expenditure and accounts	87	23—24
Maintenance of boundary marks	88	24
Utilization of settlement records	89	24
Final reports	90	24
Training of junior officers	91	24
Training of munsifs	92	24—25
Training of kanungos	93	25
Promotions and prospects	94	25
Tours	95	25
Settlement staff	96	25
Conclusion	97	26

LIST OF APPENDICES.

		PAGE
APPENDIX	I.—Progress of survey and the preparation of a record-of-rights in the Province	i
,,	II.—General progress in Survey and Settlement work during the year ending the 30th September 1913	ii—v
,,	III.—Return of disputes and inspections during the year ending the 30th September 1913	vi
,,	IV.—Progress in revision of land revenue during the year ending the 30th September 1913	vii
,,	V.—Progress of rent-settlement in areas not under revision of land revenue during the year ending the 30th September 1913	viii
,,	VI.—Result of appeals during the year ending the 30th September 1913 .	ix
,,	VII.—Statement showing the nature and number of holdings recorded in each settlement during the year ending the 30th September 1913 . .	x
,,	VIII.—Progress made in recovery of costs during the year ending the 30th September 1913	xi
,,	IX.—Expenditure for work done (including all book-debit charges) during the year ending the 30th September 1913	xii—xiii
,,	X.—Result of inspection of survey marks during the year ending the 30th September 1913	xiv

PROGRESS OF MAJOR SETTLEMENT WORK

BURDWAN DIVISION



REFERENCE

CHITTAGONG DIVISION

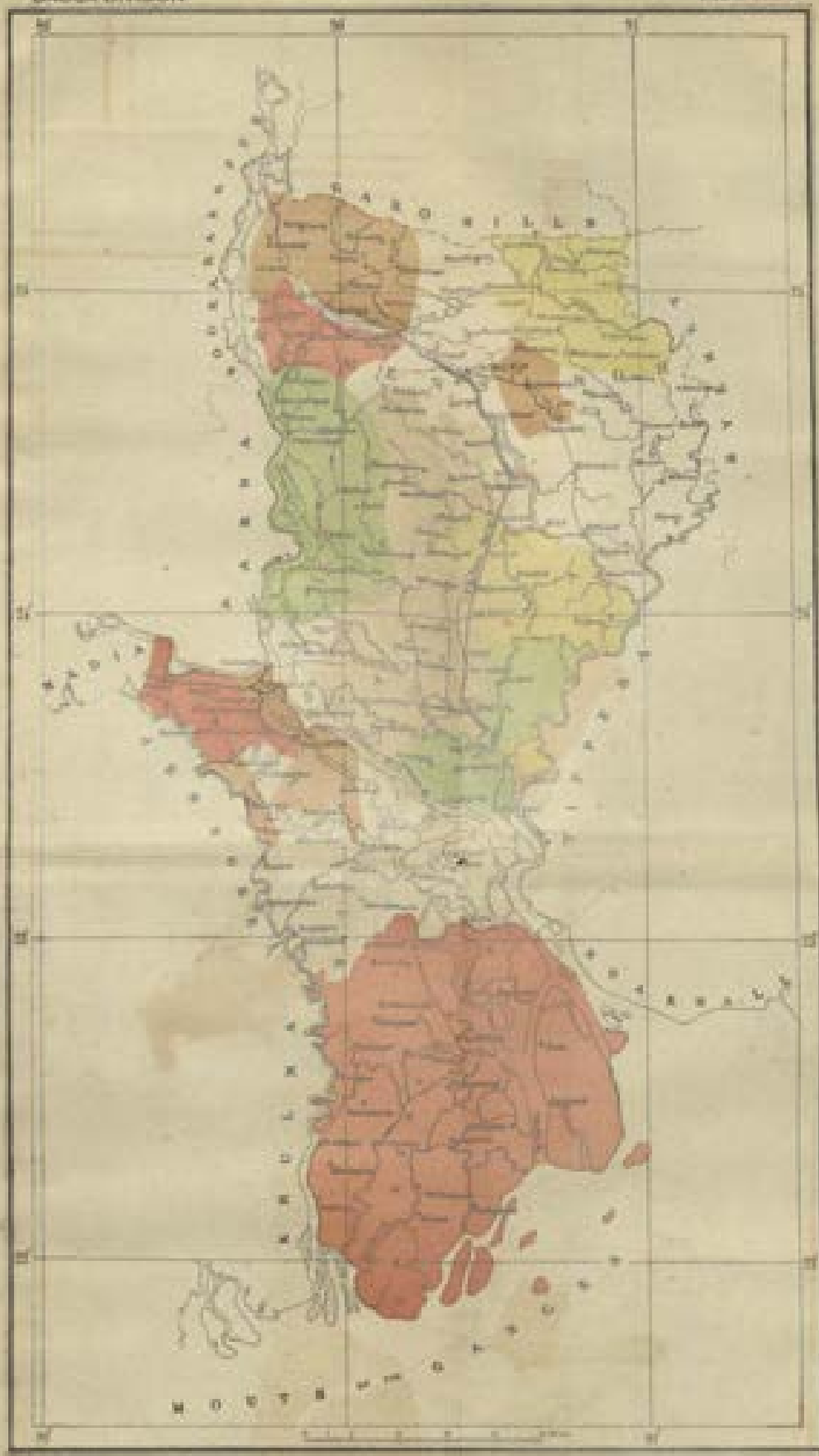
MYMENSINGH

NORTHERN ARAKAN

LOBRAL HILLS

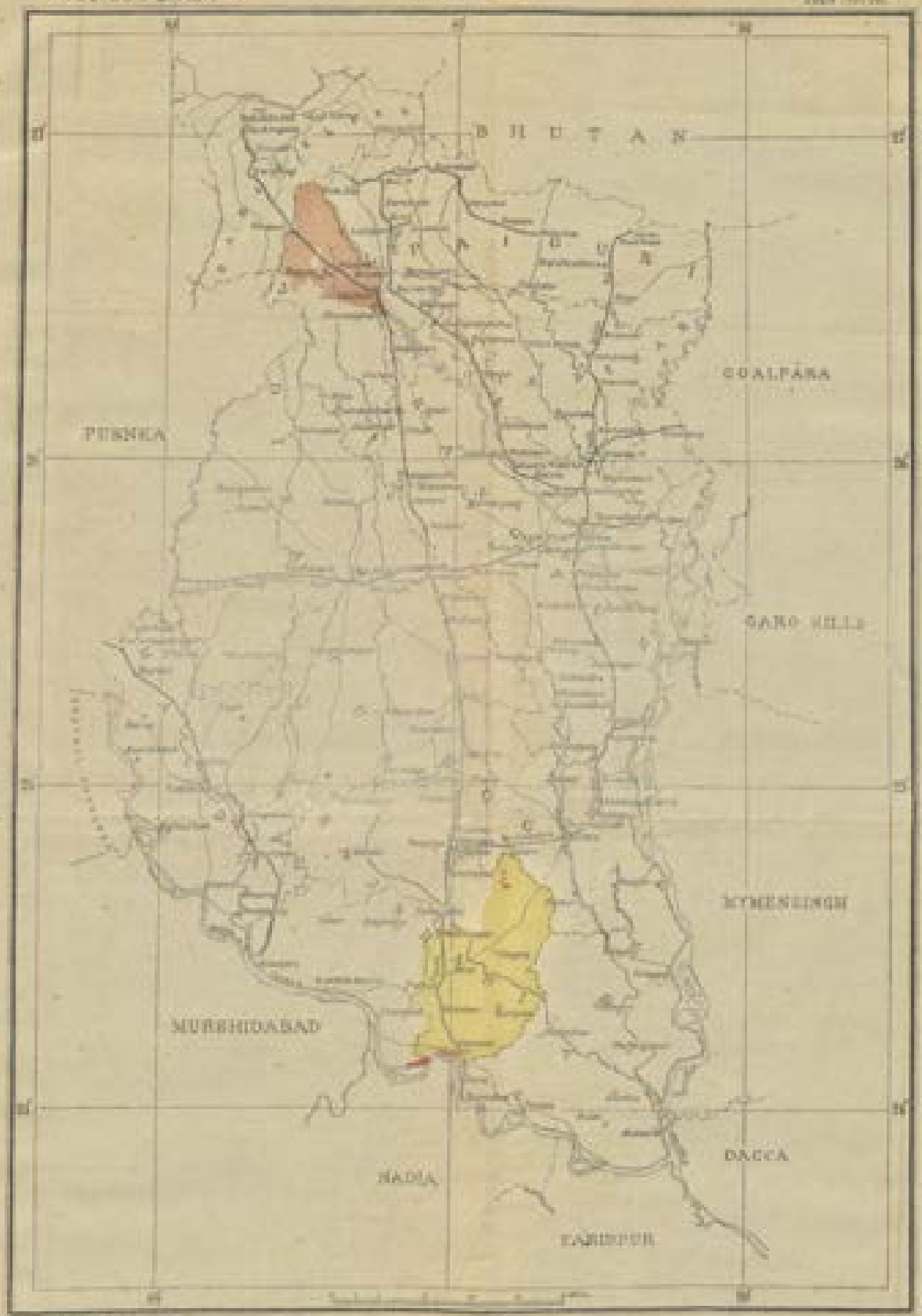
PROGRESS OF MAJOR SETTLEMENT WORK

DACCA DIVISION



PROGRESS OF MAJOR SETTLEMENT WORK

RAJSHAHI DIVISION



DEPARTMENT OF LAND RECORDS, BENGAL.

No. 125—3009.

FROM M. C. MCALPIN, ESQ., I.C.S.,
Offg. Director of the Department of Land Records, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 6th March 1914.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted in the Presidency of Bengal under the supervision of this Department during the year ending the 30th September 1913.

2. Mr. J. C. Jack, I.C.S., was Director until the 11th April 1913, when he went on special duty before his departure on leave. I have been in charge of the department during the remainder of the year.

3. The report has been divided, as in last year, into two parts, the first part dealing with the operations conducted in each district during the year and the second with matters of general interest. The introduction gives a general summary showing the extent of the year's programme and the total area settled in the Presidency up to the end of the year.

Introductory.

4. Survey and Settlement operations under the supervision of the Director of Land Records were in progress in 22 districts of the Province. Such operations are divided into two classes. The first comprises comprehensive operations called "major operations," which are supervised and financed from Imperial sources. These are in progress in Mymensingh, Dacca, Faridpur, Jalpaiguri, Rajshahi, Midnapore and Birbhum (137 square miles only). During the year under report in these major operations the cadastral or internal survey and the preliminary record-writing of 3,555 square miles were completed, the record was attested in 2,717, and finally published in 1,875 square miles. The second class comprises all other settlements in the Province which, requiring a special establishment, are placed under the control of the Director and are called "minor operations." They were proceeding in the districts of Burdwan, Bankura, Midnapore, Hooghly, 24-Parganas, Nadia, Murshidabad, Jessore, Khulna, Bakarganj, Noakhali, Tippera, Dinajpur, Bogra, Pabna and Darjeeling. In the districts of Burdwan, Hooghly, Bakarganj, Jessore, Khulna (Mokimpur estate), Noakhali and Midnapore special whole-time officers were employed, and in the remaining districts the work was done by a member of the Collectorate staff. The total outturn was 103 square miles of cadastral survey and preliminary record-writing 131 square miles of attestation, and 45 square miles of final publication.

The total area of the Province for which a record-of-rights has been prepared is 10,921 square miles. The inception of the survey and settlement operations in the districts of Tippera and Noakhali has been sanctioned by the Government of India, and traverse survey will be carried out during the field season of 1914-15.

132042

PART I.

Major Operations.

Mymensingh.

Programme for the year—

Field-work,	798 sq. miles	Fair copy,	720 sq. miles.
Attestation,	1,250 „	Recovery,	800 „

Performance for the year—

Field-work,	798 sq. miles	Fair copy,	854 sq. miles.
Attestation,	1,074 „	Recovery,	640 „

Programme up to date—

Field-work,	4,619 sq. miles	Fair copy,	2,180 sq. miles.
Attestation,	3,830 „	Recovery,	2,140 „

Performance up to date—

Field-work,	4,480 sq. miles	Fair copy,	1,363 sq. miles.
Attestation,	3,633 „	Recovery,	971 „

5. Mr. F. A. Sachse, I.C.S., was in charge of the operations during the year under report from the 9th November 1912, when he took over charge from Mr. J. W. Nelson, I.C.S., who had been acting for him. Mr. R. B. Steele, I.C.S., was also attached to the Settlement during the year.

6. The figures given in the heading are not a fair index for comparative purposes. Those for the programme are the assumed areas for the Settlement; actuals have turned out to be less. The Settlement Officer has, as a matter of fact, practically kept pace with his programme both in field-work and attestation. The field-work for the year was reduced in consultation with the Director of Surveys from 980 square miles to 798 square miles.

7. It is only in fair copy and consequently therefore in recovery and the succeeding stages that the work is behindhand. This is due to the delay in the supply of printing presses from England and the necessity of teaching an ill-adapted local staff the art of printing, both causes beyond the control of the Settlement Officer. During the year under report, besides practically completing the field-work and attestation, the Settlement Officer has made up some leeway in printing. The deficit in recovery is due to the principal landlords, who professed their inability to pay before the *Pujas*, which fell within the present year, and not the year under report.

8. The area under cadastral survey presented few difficulties. This lies in the north-eastern corner of the district near the Garo Hills, where it was found, following the experience of other settlements dealing with areas near or in hilly areas, that conditions are simpler, whilst opportunities for exactions amongst the aborigines or semi-aborigines are greater. Some difficulty was, however, experienced towards the east of Netrakona thana, which, except for two or three months of the year, is entirely under water. The survey had to be done knee deep in mud.

9. It was, however, in attestation in the Tangail subdivision and the *diara* areas in the Jamuna that the main difficulties were encountered. There were 800 boundary disputes. I quote the following from the Settlement Officer:—

"In innumerable sandy *chars* the complete absence of *ails* and landmarks, and the vagueness or absence of the tenants, had tried the patience of the amins and kanungos to the utmost at *khanapuri* and *bujharat*. But in the end nearly all the *char* sheets were filled in with plots the previous season, many of them only 20 to 50 links wide, stretching in long parallel lines right across the map. At attestation, it would be found that one out of 60 had been left out and the whole work had to be done again to find room for the missing plot. In some cases the tenants had discovered that the boundaries they had pointed out at *khanapuri* gave them a larger or a lesser area than that for which they were paying rent. They deliberately ploughed up all the *ails* that had been pegged out at *khanapuri* and did not rest satisfied until the area of the whole village as

found at survey had been mapped out into plots corresponding with the last Settlement map, or, if none such existed, the landlords' *chittas*. As we everywhere found raiyats who had continued to pay rent for lands, which had been diluviated or waste for 10 years or more, it was very hard to refuse their request."

10. In the Attia and Kagmari parganas the number of co-sharer landlords resulted in a complicated record. It was by no means uncommon to find 40 or 60 landlords over one tenant, whilst the difficulties of one co-sharer recognising a transfer when another did not, taxed the ingenuity of the Revenue Officers to find a reasonable and consistent record of the facts to the utmost. As in the case of other districts, the big landlords have been found to be the worst offenders against the section of the Bengal Tenancy Act limiting the enhancement of rent. Indeed their power is such that the tenants, when their rents have been reduced by the department to that legally payable, have even filed objections asking for the record of the rents they were paying. It would appear that in some such cases the Revenue Officers have presumed under section 109 B of the Bengal Tenancy Act the rent to be legal and have recorded it. As indicated by the Settlement Officer, it is difficult to see how they could presume such rents to be legal, knowing them to be illegal. It would have sufficed to direct the landlord to apply under section 105 for a settlement of rent. This action would seem to indicate that there is a tendency to regard section 109 B as a validating section for all illegal rents. From the words of the Special Committee who introduced the section for Eastern Bengal it is clear that the discretion of acting upon agreements and compromises, without enquiring into their legality, was to be utilised to forestall and prevent disturbances amongst an excitable and turbulent population. It was never, however, intended that the discretion should be used for the benefit of the stronger party against the weaker, or of the landlord against the tenant, unless circumstances showed that in the long run it would be beneficial to all parties not to probe too deeply into matter. The question is one of a wise discretion, which can only be exercised by an officer with a full knowledge of the circumstances of the area.

11. The problem of *bargadars* referred to in last year's report gave some trouble. In Mymensingh no *bargadar*, *i.e.*, cultivator on a rent of a share of the produce, admits that he is a labourer, yet he is too frightened to claim his full rights under the Tenancy Act, whilst the landlords will not concede them. The Settlement Officer instances a case where a *bargadar* who had held his land for twenty years gave up his *khatian* on condition that he would get it back when the Settlement party had departed.

12. This is the second Settlement to undertake the printing of the record, and, despite the despondency of the Settlement Officer regarding his poor staff and the rate at which his compositors work, the results are, as in Faridpur, eminently satisfactory. The rate per *khatian* has been reduced to 2 annas 2 pies as against 2 annas 4 pies in Faridpur during the year, but the outturn per press is only some 1,100 *khatians* per month against an average of some 1,500 in Faridpur. The difference in outturn the Settlement Officer ascribes to the poor staff available for compositors' work. Mistakes are eliminated by a subsequent independent check. The Settlement Officer reports that in one *khatian* out of 200 a serious mistake is found. In a district like Mymensingh this would result in several thousands of mistakes in the whole record if left uncorrected. It is therefore essential that there should be an adequate and independent check of the printed record, after it has passed through the printing press.

13. About half of the case-work filed was disposed of during the year under report. Various difficulties have occurred. One is the question of allowing co-sharers to apply independently under section 105, Bengal Tenancy Act. Subsequent to the end of the year, the Settlement Officer has dismissed all such applications.

14. Another difficulty was the standard of measurements. The Settlement Officer states as follows :—

"It now seems to me that the law is defective in leaving this question, which is the main issue in perhaps 1,000 cases, to be decided judicially in each one of them by different officers. No officer has the patience to record all the available evidence in each case, nor have the parties the money, or the information, or the power to produce it.

The actual difficulty seems to have occurred through the repudiation of the landlords of the tacit consent they had previously given to a certain standard being adopted.

15. Other operations under the control of the Settlement Officer were as follows :—

(1) *Jamabandi* (*i.e.* preparation of rent-roll in connection with Settlement of Land Revenue).
(2) Partition.

Diara operations were not started owing to the non-receipt of comparative maps from the Drawing Office. The revision of land revenue was taken up in 10 square miles out of 20 and the rent-rolls have been draft-published.

Two small partitions costing Rs. 137 were carried through, but the Settlement Officer reports that the big Alapsingh case, owing to dissensions of the parties and other reasons, is not likely to be carried through.

Dacca.

Programme for the year—

Field-work	...	...	..	1,050 sq. miles.
Attestation	...	...	...	845 „

Performance for the year—

Field-work	...	...	...	846 sq. miles.
Attestation	...	...	...	681 „

Programme up to date—

Field-work	...	...	...	2,560 sq. miles.
Attestation	...	...	...	1,645 „

Performance up to date—

Field-work	...	...	...	2,301 sq. miles.
Attestation	...	...	...	1,491 „

16. Mr. F. D. Ascoli, I.C.S., was Settlement Officer throughout the year. Mr. A. J. Dash, I.C.S., was in charge of the main cadastral work.

17. The programme has been satisfactorily maintained throughout. The arrear in field-work is due to the inability of the traverse party to supply the necessary plots in time for the *diara* area. In addition to the work in the programme, the survey and preparation of a record-of-rights for the towns of Dacca and Narayanganj were undertaken.

18. The field-work of the season comprised thanas Kapasia and Raipura and a large *diara* tract in the river Megna, the latter of which had for the reason given above to be practically abandoned.

In place of the latter area, a portion of Keraniganj, 70 square miles, was taken up for field-to-field *bujharat* in advance of the programme. The survey of Kapasia thana was specially difficult for the following reasons extracted from the Settlement Officer's report :—

"This was due to the fact that apart from a few level and open spaces, the whole area consisted of rough country and *bil*. The area is composed of red *kunkur* soil arranged in irregular series of hillocks, in places exceedingly steep and rising at times to an altitude of some 80 feet. The sides and summits are often clothed in dense jungle and undergrowth, in places by forests of *gazari* trees. In the south of the thana there exists an immense tract of *bil*, known as the Bil Belai, the greater part of it impassable by elephants the whole of the year. Where an elephant fails, it is not easy for an amin to succeed, but by dint of perseverance the work was completed."

19. The record itself in Kapasia presented few difficulties; interests only averaged 200 to the mile, and plots less than 900. In Raipura thana it was more complicated, interests averaging 370 to the mile and plots 1,200, whilst the complexity of coparcenary was very great, and the methods and quantity of subinfeudation perplexing. In parts of the thana also the relations between landlord and tenant are strained, and it is difficult to

apportion the blame to either party. On the one side there is oppression and on the other deceit, lawlessness and general devilment. The Settlement Officer reports that in Keraniganj, even the Bikrampur area referred to in last year's report has been rivalled in every way in entanglement of estates, complex coparcenary and subinfeudation. The survey of the town of Narayanganj, which has been completed as far as draft publication, presented no difficulties. That of Dacca town, with the exception of 4,000 interests pending for attestation, presented many difficulties both of survey and of record owing to the frequency of disputes. The Settlement Officer has prepared a separate report regarding the important question of *lakhiraj* lands in the town which has been sent to the Collector.

20. Three experiments were made in the work of the preliminary record. The first was the conversion of the kanungo into his own *khasra* section. That is to say, the kanungo was made responsible for the entry and check of the areas and the completion of the *sthit*. The result has been some saving in the cost rate. This system is worthy of standardization. I should note that the areas are still extracted at the Central Office. No change is advisable in this particular respect. The second experiment was the survey of the Madhupur jungle on the square traverse system; the patches of cultivated land are picked out by the traverse party in squares so far as practicable, and the boundaries of villages are not surveyed as such, but put in after the cadastral survey is over. The same experiment was tried in the Munshiganj *diara*. The result is a considerable saving in the cost of actual survey. The question of the extension of this experiment is one which will receive separate attention. The third experiment was the combination of the field-to-field *bujharat* with attestation immediately after survey in the Madhupur jungle where the record was extremely simple. The saving was considerable. It is only, however, in such very simple areas as in the Madhupur jungle and where the accuracy of the *khanapuri* record is already assured, that combination of survey, *khanapuri*, *bujharat* and attestation within one field season is practicable.

21. The fact that Bikrampur was in the attested area is a sufficient indication of the difficulties which were encountered and overcome; add to this the fact that tenancies averaged 720 per square mile in Bikrampur instead of the normal 250, and that it was necessary to apply the closure to the number of objections filed under section 103 A, and some further idea is obtained of the extraordinary difficulty of the work. Dacca is, as stated by Mr. Jack in his report of last year, the most difficult district at present under settlement.

Reference has already been made to the complicated system of coparcenary in this area in last year's report. A further difficulty was experienced in dealing with partitioned estates, in which it was found that present possession by no means tallied with the partition. The evidence collected by Mr. Ascoli is sufficient ground in itself for insisting on a previous record-of-rights before partition work is undertaken.

22. The attitude of the people varied very much in the area. The bigger landlords in thanas Rajganj and Narayanganj betrayed no particular keenness for the record, which was largely due to the "strained relations existing between them and their tenants and the fear that the record would save them from their clutches." The following is the Settlement Officer's description of the state of things :—

"There is not the slightest doubt that the tune has been set by three families of landlords residing within the area at Murapara, Baradi and Duptara. In their estates illegal enhancements are prevalent to an enormous extent, evictions are rife without recourse to the courts, *abwab* and illegal cesses are levied: the right of inheritance is denied; illegal confinements and other corporal punishments are resorted to, in order to crush refractory tenants. The tenants are kept in check by a rod of iron, and to such an extent do they live in a state of dread and awe, that it was with the utmost difficulty that evidence could be gathered for the purpose of preparing a true record-of-rights. Unfortunately the tune has been taken up by other large non-residential landlords of the area. In the estate of the leading Muhammadan landlord of the district, illegal enhancements have been superimposed on illegal cesses amounting to 5½ annas in the rupee; in the estate of a gentleman, who has reached the highest official position open to an Indian, rents have been enhanced, much above the maximum permitted by law. The Bhowal Raj and the Roman Catholic Mission which possesses extensive properties in the district have adopted similar measures. Where the utter disregard and abuse of the provisions of

the law is sanctioned by the actions of the more educated, it is a pleasure to note that amongst the smaller landlords, the law has obtained a greater measure of respect. There are villages where the tenantry has resisted the oppression with success; there are others where opposition has caused their utter ruin; but it seems that the age should now have come when the courts might protect and not crush the oppressed; that age, however, is inconsistent with the wealth of landlords and the venality of the local preservers of the peace."

In thanas Munshiganj and Srinagar, including Bikrampur, the interest taken by the people in the operations was extraordinary, but their demands were insatiable. The Settlement Officer describes this as follows :—

"In an area where discontent is so rife, be it political or be it private, it was to be expected that village and family quarrels would be numerous and bitterly contested. The disputes were carefully dealt with, and there was a complete absence of complaints against the attestation officers. The relationship between landlords and tenants in this area is on the whole either good or non-existent; this is largely due to the fact that realization of rents is a rare occurrence where estates and tenures are very petty and co-sharers abnormal in numbers. To such an extent is this the case that a large number of landlords and tenants were, until the compilation of the record, unaware of their mutual relations. Complicated coparcenary and subinfeudation gave as large amount of trouble as the stupendous intermixture of estates; in no area except a small portion of Srinagar thana were compact estates found. The problem of Bikrampur is an economic problem of some complexity, but is founded mainly on agrarian difficulties. The brains of Bikrampur wander about distant parts of India in search of work; the dullards and the dregs remain at home to indulge in political agitation and to mismanage the ancestral property. The result is either total lack of management or fits of petulant tyranny which the raiyat is normally able to overcome. But the lot of the raiyat is not an enviable one; the demand for culturable land is great, the supply is small; this is due partly to the purchase of lands by money-lenders for conversion into *barga*, and largely due to the normal increase in population. The value of land has now risen as high as Rs. 200 to Rs. 300 per standard bigha; this is due to the abnormal demand and the increase in jute cultivation, which, by lowering the local production of paddy, has helped to raise the cost of living to a very large extent. The result of this lack of marketable land is to increase the supply of men who are willing to hire themselves out as hired labourers or to assume the position of the *bargadar*. The net result of this complex situation is that neither the landlord nor the tenant class as such is over prosperous."

23. One peculiarity of the Bikrampur area was the large number of disputes regarding the possession of tanks which, though very numerous, on the contrary do not indicate a satisfactory state of water-supply. In the extracts given from the Settlement Officer's report, a reference has already been made to the illegal enhancements, and this fact was also animadverted on in last year's report. This matter need not be elaborated this year. Suffice it that it is in the estates of the larger landlords and of men who have risen to the highest positions in the State, a fact to which attention has been drawn in the paragraphs dealing with other settlements, that the most phenomenal enhancements have been found. It is to be hoped that these discoveries will lead the gentlemen in question to enquire more closely into the affairs concerning their estates and to insist on the law and not only the law, but the spirit of the law, being followed in the future in due conformity with the conditions of moderation and clemency towards their tenantry on which the Permanent Settlement of the estates was granted.

24. The Settlement Officer reports that the evil of *barga* tenancies is on the increase. In Rupganj and Narayanganj the *bargadar* is regarded as a tenant-at-will but in Bikrampur his position is much stronger, and in a vast number of cases he is regarded as having the same status as an ordinary raiyat. A tendency is however manifest even here to regard a newly created *bargadar* with less respect. The Settlement Officer instances certain peculiar kinds of *barga* tenancies, such as *dhaki* or *thika barga*, according to which the tenant pays a fixed amount of the crop each year or its monetary equivalent. The *dhaki* system is stated also to be spreading rapidly.

25. The following special work was undertaken by the Settlement Officer :—

(1) *Diara* resumptions,
(2) Cess revaluation, and
(3) Partition.

Sixty-five *diara* resumption proceedings covering the courses of the rivers Budsi, Jamuna and Padma so far as they lie within the district, were completed and submitted to the Board of Revenue, while 103 other completed proceedings for the river Dhaleswari were ready for submission. Considerable difficulty was felt in collecting and examining the Collectorate records of previous surveys and resumption proceedings, as they had not been systematically arranged or consigned in the record room. The cost incurred (Rs. 7,112) will be covered by 14 months' revenue of the estates formed.

The orders for cess revaluation were received late in the field season, but nevertheless the work made satisfactory progress. Calculation has been completed in respect of 231 estates and it shows an increase in cess by 25 per cent. As for partition, work was taken up in 28 estates, of which allotment has been completed in 15. It is, however, feared that the completion of the partition programme will hamper final publication.

Faridpur.

Programme for the year—

Fair copy,	1,400	sq. miles.	Publication.	597 sq. miles.
Recovery,	756	„ ...	Rs. 5,42,000	

Performance for the year—

Fair copy,	1,275	sq. miles.	Publication.	491 sq. miles.
Recovery,	544	„ ...	Rs. 4,33,525	

26. Mr. W. H. Thompson, I.C.S., was in charge up to 1st December, 1912, when Mr. B. C. Prance, I.C.S., who had been on leave resumed charge.

27. The Settlement is now in its last stages and the programme of the year contained a number of miscellaneous items which go together to give the finishing touches to a settlement. Performance has in almost all the items nearly equalled the programme. That it has not done so, or indeed exceeded the programme, is due to the cyclone of the 1st November which, though only 300 yards broad, entirely swept through the Settlement Office, destroying papers and calculations which had to be rewritten or recalculated, thus causing delay in all branches of the work. At a rough estimate the loss to the Settlement by the cyclone is Rs. 35,000. The following description of the effect of the cyclone is given in the Settlement Officer's own words :—

"The duration of the storm appears not to have been more than one minute. Three men were killed, and one of the injured died subsequently. Three men were severely injured, and 37 others slightly injured were able to leave the hospital after their wounds had been dressed, and many others had slight cuts and bruises. Of the 9 main buildings, 5 were completely unroofed, 2 were partly unroofed and 2 escaped with little damage. The sheets of corrugated iron were scattered far and wide over the surrounding *maidan* and in the neighbouring tanks. The short duration of the storm saved many papers from being carried away, but some papers were caught up by the wind, and carried right away, while others were blown into the tanks. Papers were brought in by a cultivator from a distance of 5 miles. The rain which started an hour after the cyclone increased the damage considerably and delayed the salvage of the papers. For 10 days most of the staff were employed in collecting and sorting the scattered papers."

The greater part of the staff, it is reported, did all they could to rescue the scattered papers, and every credit is due to them and to the Settlement Officer for the rapidity with which order was restored and for the tale of work done which has been presented at the end of the year.

28. The most remarkable feature of the Faridpur Settlement is the success which has attended the experiment of printing the records. Though handicapped by the cyclone, the results particularly from the financial point of view have outstripped anticipation. The following account given by the Settlement Officer needs no further words of mine to illustrate this :—

"In the printing of the final records 1,275 square miles with 732,363 have been finished out of a programme of 1,400 square miles and 782,400 interests. Had it not been

for the cyclone the programme of the year would certainly have been exceeded, probably by about 10,000 interests, instead of the outturn falling short of the programme by 50,000. The monthly outturn increased from 59,000 interests in January to 82,000 interests in October, though, owing to the variation of the number of words per interest in different parts of the districts, the progress was not uniform. Unless the first few months after the *Pujas* turn out to be very unhealthy (as is sometimes the case in Faridpur), the printing of the Faridpur record will be completed by March. If the Jalpaiguri records were not to be printed along with Faridpur, it would be possible to finish about the middle of February, but it is understood that the Jalpaiguri records will begin to arrive after the *Pujas*. The cost per interest was 2 annas 4 pies which is considerably below the original estimate of 3 annas per interest. As the cost of printing varies only with the number of interests per square mile and the number of words per interest, the cost rate of Rs. 81 as against the standard rate of Rs. 54 requires no further explanation.

The original programme was to print only 533,000 per year for 3 years, but on account of the delay in arrival of the presses from England and the difficulties in training so large a staff, the programme has been increased. The printing began in October 1910 with 10 presses purchased in India, but the 30 presses from England did not arrive until 1911, when they came by instalments, so that full work did not begin until August 1911.

The following table shows the progress for each half-year and illustrates how much the training of compositors increased the cost rate at the start.

	No. of interests printed in the half-year.	Cost rate per interest in annas & decimals.	
October 1910—March 1911 ...	20,983	8·5	10 presses.
April 1911—September 1911 ...	72,131	4·8	10 to 40 presses.
October 1911—March 1912 ...	149,927	3·0	Pujas and large desertions among compositors.
April 1912—September 1912 ...	313,351	2·4	
October 1912—March 1913 ...	289,348	2·4	Cyclone and Pujas.
March 1913—September 1913 ...	436,828	2·2	

The cost rate up to date is 2 annas 8 pies per interest. Other settlements will benefit greatly by getting a larger part of their staff already trained. They will also not experience the great difficulty found in the first 18 months of the work here, which was to persuade compositors that the rates paid would really give them a good wage if they would continue to work for a long enough period to really learn the way to compose quickly. In the earlier stages, if not successful in the first month or two, compositors went away; and not a man who could get any other work anywhere would accept the post of compositor. Now there is no lack of applicants for a vacancy, as they see that the average earnings are about Rs. 25 per month. In order to get the present staff of 260 men, more than 1,000 men have been employed, most of them for short periods. There was at first a strong prejudice against the work of a compositor as it was thought to be work more suited for a *menial* than for a *bhadrolog*, but this prejudice has now almost entirely vanished."

29. That final publication and the concurrent recovery of cost have not reached the anticipated figure is due not so much to the cyclone, but partially to the lateness of the jute crop which delayed the commencement of recovery for 1½ months, and partially to the necessity for a fresh apportionment of costs in certain thanas and the necessary delay in obtaining sanction therefor. The original apportionment statement had been based on the rents paid by raiyats, but it was subsequently found that in certain thanas rents were so low that they did not produce the required amount. For this reason and in order to provide for the revised estimate of the amount to be recovered, a fresh apportionment order was issued. One remarkable feature of recovery is that over 60 per cent. of the recoveries up to date consist of the minimum sum of 4 annas. This illustrates better than anything the small size of the tenancies in Faridpur, a factor which has contributed so much to swell the costs of the Faridpur Settlement. Four per cent. of the demands made were not realised. This last percentage, for which the Settlement Officer has issued certificates, is attributed by him mainly to the time which has elapsed between attestation and final publication, resulting in changes by death or transfers in the interval, so that the person from whom the money was realisable could not be readily found. Steps are being taken to reduce the percentage.

30. Another prominent feature is the abnormal amount of case-work which has been filed subsequent to final publication. 13,713 cases under

section 105 relating to 28,228 tenancies and 1,466 cases under section 106 relating to 1,693 tenancies were filed and it is expected that an equal number will be filed next year. It was, however, never contemplated that this amount of work would be finished during the year, and special arrangements for a large staff of officers, including three Munsiffs specially deputed by the High Court, are being made for its disposal during the current and succeeding years.

31. Of the other work belonging to settlement proper, the remaining objections under section 103A have been disposed of; *jamch* or final scrutiny of the record has been completed, and the completion of statistics (partially destroyed by the cyclone) has been almost finished. There has been some delay in the completion of the 16-inch village maps due in a measure to the necessity of reference to them by the officer-in-charge of the partition operations. It is exceedingly fortunate that the cyclone did not touch the maps; their loss would have been an incalculable disaster.

32. In addition to the ordinary settlement operations, the following work was in progress :—

(1) *Diara* operations for the assessment of alluvial accretions;
(2) Settlement of land revenue in Government and temporarily-settled estates;
(3) Cess revaluation; and
(4) Partition.

Duara has made good progress. Four proceedings were submitted to the Board during the year. At the end of the year 26 estates were pending only for the execution of *kabuliyats* by proprietors and nine others for the Board's orders. An appeal for revision was lodged in the case of the river Madhumati and the original order that the river was non-existent at the time of the Permanent Settlement has been revised, and certain further enquiries have to be made. No other work in connection with *diara* is pending. In the revision of land revenue good progress has similarly been made, and out of 36 estates in the programme, operations were completed in 33 estates resulting in an increase of 75 per cent from Rs. 34,889 to Rs. 61,987. The increase in the raiyati rental was 45 per cent. The increase is principally due to the extension of cultivation and the fact that the tenants were cultivating their lands at rates far below the prevailing rates taken by proprietors in the neighbourhood. The rent is still, however, low, averaging Rs. 2-2 per acre. That the percentage of increase in revenue is higher than in the rental is due to the fact that the proprietors' rent rolls had increased owing to the extension of cultivation and other circumstances, whilst the revenue had stood still during the currency of the previous settlements. Whilst the financial results are gratifying, every care has been taken of the raiyats' interests and to see that only a moderate rental is demanded. In one estate Char Janajat it was found that the village headmen had made a practice of dispossessing the former tenants of their lands. The Settlement Officer, however, prevailed upon them to return a number of these lands.

The work which was most damaged by the cyclone was that of cess revaluation. Though, however, the return for the year is disappointing, viz., 1,585 estates and separate accounts complete and 7,071 pending, this is misleading, inasmuch as much of the remaining calculation work has been done and it is still expected that all the calculations will be ready in time for the cess to be brought into effect from April 1914, the date fixed when the result of the cyclone was known. A substantial increase may be expected as up to date the new cess amounts to Rs. 88,736 against the old cess of Rs. 51,420. The fact that certain records were required for partition purposes at the same time has caused some delay in this branch.

There were 21 estates under partition covering an area of 104 square miles; of these the allotment had been completed in all except two estates at the end of the year; in one of these the allotment was expected to be finished in November and in the other the work will be done after

final publication. Four of the partitions have been confirmed by the Commissioner, and in 4 cases the records were with the Collector for realising costs or hearing objections. Since the end of the year the partition of the largest estate and a group of 9 estates have been approved by the Collector. As to how far the result of these partitions can be incorporated without delaying printing is not clear.

The Settlement Officer reports as follows :—

"There is no doubt that partition by the Settlement Department is popular with the proprietors, as they greatly appreciate the reduced cost, the greater care and accuracy and the greater celerity, but it certainly interferes to the prejudice of other branches of the work. The retention in the mufassal of mauza records required for reference in other branches and the impossibility of printing compact blocks has caused considerable inconvenience and some increase of cost to other branches."

I quite agree with the Settlement Officer. That he has been able to show such good progress is entirely due to the enforced delay in printing and final publication. Without this delay partition, despite the excellence of the settlement operations as a means of doing it, would have unduly interfered with printing and final publication, and as it is, has been a cause of delay and considerable inconvenience to other branches of work. The result of the experiment has been in my opinion to prove that in every case the settlement record in the hands of officers, thoroughly acquainted with settlement procedure, should be the basis of a partition but that partition cannot conveniently be made to form an appendage to settlement operations.

Jalpaigurl.

33 Mr. J. A. Milligan, I.C.S., Deputy Commissioner, did the work of Settlement Officer in addition to his own duties till 9th July 1913, when he went on leave, and was succeeded by Babu Jnanendra Nath Roy, Deputy Collector, who acted as Settlement Officer during the remainder of the year.

34. The programme for the year contained the fair copy and final publication of the total area under the operations, viz., 2,037 square miles. It comprises two distinct areas, the permanently-settled area of 992 square miles and the temporarily-settled area of 1,045 square miles. The fair copy (by hand) of 587 and final publication of 448 square miles in the former were completed in the year under review. That no further progress in this area has been made is due to the incompetent and fever-ridden staff which the Settlement Officer has had to employ, necessitating the most careful scrutiny of the record. Even at the last stage when the record was being copied, wholesale fudging was detected, which necessitated a careful re-scrutiny of a portion of the record.

35. The arrears in this portion of the area hang, as the Settlement Officer says, "like a millstone round the neck of the settlement." The fair copy for this area is being prepared in Barisal, on account of the difficulty of obtaining and retaining muharrirs ; not a very satisfactory arrangement it must be admitted, though probably the best under the circumstances. It is therefore little wonder that the outturn leaves much to be desired.

36. Recovery proposals were also sanctioned during the year, but not in time to allow of recoveries being made.

37. In the temporarily-settled area the final decision regarding the principles of assessment of land revenue was passed in February 1913. Since then rent-rolls had been published in draft for 768 square miles (out of 1,045) and the settlement of 299 square miles had been confirmed in the year under report. There is little reason why there should be any further hitch in this work. It has been decided that the printing of this portion of the record will be done in Faridpur under the superintendence of the Settlement Officer of that district.

38. The work of the settlement is now a long way towards completion. Only a moderate number of cases had been filed, 3,136 cases under sections 105 and 106, average 7 per square mile.

39. The settlement of land-revenue has resulted in an increase from Rs. 2,00,487 to Rs. 2,51,724, or by 25 per cent., in the year under report. Cess revaluation is proceeding.

40. It remains for the Settlement Officer during the current year to gather together all the threads of the settlement and to bring it to a close. No question of principle remains for decision, except the question of the form of the new leases and the larger question of the future administration of the Western Duars. "But," the Settlement Officer reports, "the mere settlement of the wording of the leases will not solve the problems which arise from the notifications of 1898 extending the Tenancy Act. It will be a pity if this settlement comes to an end without a complete elucidation of the position, and the introduction of a consistent and homogeneous land law throughout the tract. If this be impossible a clear pronouncement of the intentions of Government with regard to the future revenue history of the Duars seems to me eminently desirable, so that it may be easier on the occasion of the next settlement than it has been on this occasion to maintain the continuity of that revenue policy which has placed the Duars in its present transitory stage." What Mr. Milligan's reasoned proposals are in this respect will be awaited.

Rajshahi.

Programme for the year—

Cadastral survey, khanapuri and preliminary recess.	880	sq. miles.
Bujharat	880	,,

Performance for the year—

Cadastral survey, khanapuri and preliminary recess.	842	sq. miles.
Bujharat	716	,,

41. The year under report was the first year of the settlement operations proper. They were received at first with hostility by the larger landlords, revealing itself in studied indifference and impudence on the part of their inferior staff. Welcomed however by the tenantry, the raiyats do not appear to have been able to resist believing the rumour, sedulously spread by the landlord's agents, that settlement was going to raise the rents on all lands found to be bearing jute. The cultivation of jute was thereby restricted in the year under report.

42. Eastern Bengal methods, forms and procedure were adopted by Mr. W. H. Nelson, I.C.S., who was Settlement Officer throughout the year till the 1st April 1913, when he went on leave, being succeeded by Mr. W. H. Thompson, I.C.S., who was appointed to act for him.

43. The programme for the year was the usual first year's programme of survey, *khanapuri* and *bujharat* covering the whole of the Natore subdivision, except 18 square miles of *diara* land in the Ganges, which have been relegated to the *diara* operations in the last cadastral field season of the settlement. The survey *khanapuri* and recess of this area were completed during the year under review. That the *buiharat* of only 716 square miles out of 842 was completed, is due to the initial difficulties with which the Settlement Officer had to contend at the commencement of the operations, and which often fall to the lot of a settlement at its inception. It is very creditable to the staff and the Settlement Officer that so much has been accomplished. The explanation is given below in the Settlement Officer's own words :—

"At the beginning of the season there were small matters which delayed the start of field work. The Survey Department failed to send the sheets in time. Sufficient instruments were not available, and when ordered from a Cawnpore firm, were found very unsatisfactory. Much of the area is *bil* land and kanungoes and amins could not start work at all in some Halkas, which were completely under water till the middle of December.

* * * * * * * *

Throughout the season the staff suffered badly from the malaria, which attacks strangers all the year round in Natore subdivision, but specially in October, November and December. Two kanungoes were absent for practically the whole season, and I think there was not one, who was not laid up at some time or other. Amins and their coolies suffered worse, as they took *less precautions*. There were instances at the beginning of the season when every one of the amins working under a kanungo was laid up at the same time, and for a few days work in the Halka came literally to a standstill."

44. The consequent delays pushed the commencement of *bujharat* forward till April, with the result that the *bujharat* of 126 square miles of the *bil* area had to be abandoned, as in the later months of the year it was entirely under water and identification of the plots became impossible. The completion of this at the commencement of the present year will not materially interfere with the progress of the settlement. For the present year the Settlement Officer has obtained information from the Traverse Party, which will enable him to concentrate his staff on the dry area at the commencement of the season.

45. As already mentioned Eastern Bengal methods were employed in this settlement. Two departures have however been made from the accepted procedure. The first is the adoption of certain rules for reducing the number of *khatians* of co-sharer landlords. The second is the adoption of the system by which the *bujharat* kanungo completes the entry of areas and totalling thereof in the records at *bujharat*. Both are labour, time and money-saving devices, which have worked successfully. The first device is one which goes towards reconciling the diverse methods of West and East Bengal. It is, however, capable of further modifications, and these are under consideration.

46. The number of plots to the square mile reached the unexpected large number of 1,266, as compared with the ordinary number of 1,000. The number of interests was also large, viz., 370 to the square mile as opposed to the standard of 250. Two curious tenancies were met with. The first is called *sankarari* and applies only to lands sown with *boro* or summer paddy in the *bils* north of Natore. The area of the *bil* under the paddy is actually measured each year and the rent paid according to measurement. The second is called *bhag khajna*, a system of produce-rent where the tenant pays one-fourth of the crop *plus* a money-rent. That the idea underlying this rent is that as the cultivator will have to pay a fixed sum of money as part of his rent, he will take a little more trouble in cultivation, is itself a sufficient contention that even the landlords recognised that the share-produce system of rent involves an economically unsound system of production. The Settlement Officer reports that there are considerable areas under *barga* rents. Questions of enhancement of rent belong more properly to the attestation stage, but sufficient material has been collected by the Settlement Officer to show that the provisions of the Bengal Tenancy Act, that rent shall not be enhanced by more than two annas in the rupee at a time, are a dead letter. He reports that the landlord has little trouble in effecting an illegal enhancement of eight annas in the rupee, and states as follows :—

"The temper of the raiyats (or the repression of it in the course of a long time) may be judged from the fact that big landlords have often been able to bring in enhancements of eight annas and more per rupee of the rent with no more trouble than a landlord in Eastern Bengal has to bring in an enhancement of three annas. The enhancement has usually been made on the plea (unanswerable by the raiyat) of an increase of area upon measurement. In nearly all the big estates there have been these excessive enhancements although the process goes on in one or two mauzas at a time and it has not yet reached all the mauzas. Where these enhancements of rent correspond to a real improvement in the management of the estate the raiyat has some compensation, but this is not always the case. That the relations between the landlords and tenants are not more strained than they are is remarkable. The power and the tradition behind the Natore estate, Dighapatia and the Puthia estates account for it in their case, and the former, Natore and Dighapatia estates, are on the whole well managed. Much of the energies of the Puthia estates in Natore subdivision is directed to quarrelling among themselves and with the Midnapore Zamindari Company. Relations are strained in the big Kusumbi estate belonging to Rai Banamali Ray Bahadur of Pabna and the rents are very much above the average, but the estate is certainly well managed. A much smaller estate where relations are strained is that of Manivi

Ershad Ali Khan of Natore, a permanent member of the District Board. An instance of a very large enhancement of rent even for Rajshahi is that of a distinguished family of brothers one of whom is a Judge of the High Court. In a large mauza Walia in Lalpore thana the patnidars after a Civil Court partition have been trying to reassess the rents on the basis of areas given in the partition papers which would about double the rent all round and the result is that they have collected practically nothing for five years. But there are very few similar instances.

As this goes to press, a report has come in that subsequent even to last year's proceedings in the areas concerned, a big landlord has executed a *tour de force* by increasing rents by six annas in the rupee in certain villages, without even the excuse of an increase of area. There is only one instrument which Government can use as a punishment in such a case, and that is the Durbar List. It would thus appear that big landlords and cultured persons who have little excuse for a want of knowledge of the law are the worst offenders against one of the definite instruments in the Bengal Tenancy Act for the protection of the raiyat.

47. A few words are necessary with regard to the staff with which the Settlement Officer had to work. At first the kanungoes were not endowed with a sufficient *esprit de crops* for the settlement, but latterly during the *bujharat* season, despite the hardships of the work, they worked very hard and deserve much credit for having got through as much as they did. The amins on the whole were not quite up to the average. An attempt had been made to train local men called *patwaris* for this purpose, but unsuccessfully. The Settlement Officer reports that it is impossible to obtain the class of men in this district who will make an amin, owing to the constitutional laziness, engendered by malaria, of the people and their exaggerated notions of dignity. The training of *patwaris* has therefore been abandoned. In place thereof it is under contemplation that this settlement, as well as the other major settlements, shall maintain a training class for amins' muharrirs who have worked successfully as such and who aspire to be amins. This will constitute a source of recruitment for amins for both major and petty settlements and should eventually prove a competent nucleus from which landlords can also draw on for the management of their own estates. I refer to this again in the first paragraph of Part II.

Midnapore.

Programme for the year—

Field-work	...	...	...	1,069 sq. miles
Attestation	...	...	...	956 ,,
Jamch	...	...	...	956 ,,

Performance for the year—

Field-work	...	...	...	1,069 sq. miles.
Attestation	...	...	...	956 ,,
Jamch	...	...	...	53 ,,

Programme up to date—

Field-work, 2,025 square miles. Attestation and *jamch* as above.

Performance up to date—

Field-work, 2,025 square miles. Attestation and *jamch* as above.

48. I was in charge of the operations from the beginning of the year till the 7th April when Mr. A. K. Jameson, I.C.S., was appointed Settlement Officer. Mr. G. H. W. Davies, I.C.S., was Assistant Settlement Officer in charge of part of the operations.

49. The programme for the year contained the attestation of the previous year's area and the field-work of the remaining portion of the jungle mahals in the south-west of the district and of a portion of the alluvial tract. This was completed. The arrears are in the *jamch* or scrutiny of the attested record. This is due to the difficulties of the attestation area which kept the camps out in the field till very late in the season, thus postponing *jamch* till the end of the year.

50. Progress in field-work was slow at the outset, particularly in the alluvial area, for several definite reasons. First and foremost was the poor quality of amins. This has been remedied in the present year by the adoption of the East Bengal methods of payment which has led to a larger supply of amins from whom to select. Secondly, there was much sickness at the beginning of the season. Thirdly, the intensity of plots in the alluvial area was particularly high. In the combined jungle and alluvial area it reached the number of 1,177 to the square mile; consequently it was still higher in the alluvial area. Fourthly, the proportion of *basti* or village area, thickly covered with bamboo clumps and groves of trees, was high, and it was difficult to survey. Lastly, some difficulty was experienced in finding and surveying scattered and isolated estates which had not been included in the previous Settlement operations in Midnapore, though geographically within the boundaries of the area under those operations. Despite these difficulties, however, the programme was completed.

51. There were 276 boundary disputes. Present possession was the basis of the decision in these cases according to the law; when the question of possession did not arise decisions were given according to the *thakbast* maps, which exist for the thanas of Kharagpur, Danton and Naraingarh. They do not exist for the jungle tracts of Gopiballabhpur and Jhargram. Internal disputes resolved themselves into questions regarding the right to trees and the right to jungle produce. In the Beliabera pargana there were disputes owing to the efforts of the landlord to demarcate off portions of fields as definite plots for which a produce rent was payable, the remainder of the rent being paid in cash. The number of disputes averaged 7 to the square mile; that the number is so small is to be attributed to the fact that a considerable portion of the area is inhabited by aboriginal and semi-aboriginal tribes who raised few disputes.

52. There is nothing important to record regarding the system of land-tenure in the area under field-work. The *Mandali* system already referred to in last year's report was found in Gopiballabhpur, Jhargram and Kharagpur.

Sub-infeudation was rare, and only in Danton was any difficulty experienced regarding co-sharer landlords. Only in the jungle tracts of Gopiballabhpur, Jhargram and a part of Kharagpur was detailed classification of the land attempted. In the alluvial tracts such a classification was not necessary.

The slow progress of survey and *khanapuri* had, however, its effect on the drawing and preliminary recess sections, of which the work had not been completed at the end of the year. This has not, however, materially affected the present year's attestation.

53. It was in attestation that the burden of the work was felt. Being the first year in a new area, it was some time before the officers could adapt themselves to the conditions of work in Midnapore. The subordinate staff was raw and had to be trained in everything. Automatic attestation was impossible; every point required the personal attention of the Assistant Settlement Officer, and it is believed, except when in one camp an important order demanding discrimination was reduced to a matter of routine with disastrous results, received it. The camps were also at first delayed by the preparation of certain forms prescribed to bring out the prominent features of the transfer of land from aborigines and semi-aborigines to the Bengali element; eventually the final preparation of these forms was put off to *jamch*. Internal difficulties were also many. In Garbeta thana there was excessive subinfeudation which required careful examination; in one village the *khewat* or record of proprietary and tenure rights contained no less than 242 entries. Trees gave an amount of trouble in some cases quite out of proportion to their importance, either as to exact numbers or as to position or as to the rights in them. It has been decided in this respect to follow in future the Eastern Bengal system and simply to record them in a homestead statement and the general rights in the *khatian* of miscellaneous rights and easements, in which also the common rights of the tenants to jungle produce have been recorded. The difficulty of the quasi-*utbandi* lands composed of soil which can only be cultivated every three or four years and is often abandoned altogether after one crop has been

raised, and which in common with the homestead and regularly cultivated adjoining lands is measured yearly by the landlord and assessed to rent, was solved as follows :—

It was decided for one reason because the practice had no antiquity behind it, that the lands could *not* be classified *as uthandi*. Two *khatians* were accordingly opened. The first contained the land which the tenant regularly used, with the rent paid for him for it, whilst the second contained simply a record of the other lands found to have been cultivated by him during the year of survey with the rate of rent payable by him for it when he cultivated it. It is by no means clear that all the rents entered for these lands ever went into the landlords' pockets. Probably *not*, because this must have depended upon the intensity of inspection of the landlords' superior staff, whilst the chances of the landlords' loss are much increased by the practice of allowing such accounts to be kept *en bloc* for different areas and not by villages.

54. In the Silda pargana in thana Binpur the difficulties of rent attestation were found to be so great that an application has had to be made to Government for the use of section 112 of the Bengal Tenancy Act, so as to be able to settle and reduce rents where necessary. There are only two other occasions on which this section has been used. The Settlement Officer reports as follows :—

"But the question of enhancement of the Mandal's *rent* was found extremely difficult to deal with. Many of them had executed *kabuliyats* for the increased rent, and even though the increase was in some cases as much as 500 per cent, it could not be cut down as the Mandals are tenure-holders, and there is no restriction on the enhancement of a tenure-holder's rent by contract, however unfair or inequitable it may be. But it was when the question of the rents of the raiyats under the Mandals came to be dealt with that the greatest difficulty arose. The Mandals, as was only natural, finding their own rents enhanced, increased those of their raiyats in a similar or a larger proportion. In those cases where the enhancement exceeded two annas in the rupee it could be cut down under the Bengal Tenancy Act, and this was done, but the resulting position was entirely anomalous and indeed chaotic, for it left the Mandal with no profit and in most cases with an actual loss.

Otherwise, rent disputes, the Settlement Officer reports, were not on the whole very numerous. Where they existed, they were generally complicated by the combination of increased area with an enhanced rent. It was thus very difficult and often impossible to prove an illegal enhancement of rent, even when it was suspected. The status of the Mandal, referred to in last year's report, was generally recorded as that of a tenure-holder. Claims to fixity of rent were numerous. The Settlement Officer reports as follows :—

"In fact it almost appeared as though the original intention of the zamindars in letting out the land for reclamation had been to fix the rent in perpetuity, although no definite terms were found in the original *pattas* to that effect. In this connection much use was made of the High Court Rulings in the case of Watson & Co. *versus* Radhanath Singh, and Ram Dayal Giri *versus* Midnapore Zamindari Company, in which it was laid down that the absence of words indicating fixity in the original grant might be made good by the subsequent conduct of the parties. Accordingly where it was found that at several successive settlements, even when additional rents had been assessed for additional area the existing rent for the previous area was *left unchanged*, the status was recorded as *mokrari*. One interesting form of status was found to be common in Garbeta thana, that known as *panchaki*. The origin is said to have been in grants of land to Brahmins who considered it beneath their dignity to accept a gift of rent-free land from persons of inferior caste and accordingly a nominal rent was assessed and fixed in perpetuity."

55. A kanungo was attached to each attestation camp for the careful check of the detailed classification of the land. In addition to this duty he was also entrusted with other duties such as check in the field of the record of a certain proportion of the fields.

56. The procedure hitherto adopted in Midnapore has been the Bihar procedure, and no changes of any importance were introduced in the year under report. The printing of the record has, however, been sanctioned by the Government of India.

57. Two other items of work carried out in addition to the regular work were the ascertaining of chaukidari *chakran* lands and cess revaluation. Three

Assistant Settlement Officers were vested with the powers of a Commissioner under the Chaukidari Act for the purpose of ascertaining the chaukidari *chakran* lands in thana Binpur. Sixty-two formal proceedings were drawn up These proceedings will be forwarded to the District Magistrate for action. The net result was the record as *chakran* of 1,121·53 acres of land held by 197 chaukidars.

Cess revaluation was undertaken in thana Salboni in accordance with Chapter IIA of the Cess Act. The work was confined only to two camps. At the end of the year the work was still in progress, and it is possibly too early to make any definite remarks regarding the success of the experiment. Suffice it that in some respects the present revaluation has led to a considerable increase on the old, whilst on the other hand the Settlement Officer has met with difficulties which severely hamper the progress of the work. At the end of the present season it will be sufficient to report fully and specially on the working of the Chapter.

Birbhum (Rampur Hat).

Programme for the year—

Final publication, 2·52 sq. miles (Bhadrapur).
Recovery, Rs. 5,762 (Rampur Hât) + Rs. 1,499 (Bhadrapur).
Case-work ... ... 1897.

Performance for the year—

Final publication, 2·52 sq. miles (Bhadrapur).
Recovery, Rs. 5,762 (Rampur Hât) + Rs. 1,387 (Bhadrapur).
Case-work ... ... 1885.

58. Mr. P. M. Robertson, Deputy Collector, was in charge throughout the year.

59. The programme for the year consisted of the closing items in connection with the survey of 137 square miles of Sonthal villages. This was completed with the exception of the settlement of fair rents under section 112 and the trifling exception of some slight arrears under case-work and recovery, which require no explanation.

60. The conclusion of the work in this district has been delayed by the delay in obtaining final orders regarding rates of rent in connection with the settlement of fair rent under section 112 of the Bengal Tenancy Act. Mr. Jack had once examined the rates in February 1913, but under the order of the Board I had to visit the locality again in April to complete certain enquiries which were necessary. However, orders have since been received, and final proceedings will be drawn up as soon as Mr. Robertson, the Settlement Officer, returns from leave.

General.

District.	Partal of Cadastral Survey.			Inspection of khanaturi.
	Number of linear miles of partal in each square mile.			
	Personal.			Number of plots per centum inspected.
	By whole staff.	By officers only.	Independent.	
Mymensingh ...	2·65	·46	Not in force.	Unknown.
Dacca ...	3·29	·12		3
Rajshahi ...	3·80	·24		9
Midnapore ..	3·51	·33	1·10	17

61. The above figures show the severity of inspection of cadastral survey and *khanapuri* in the different major settlements. As last year, the figure of partal in Midnapore is *not* an adequate index of the severity of inspection, as there was a considerable area of jungle. Inspection has been sufficient in all settlements, and so far as partal is concerned is generally an improvement on last year's return. The inspection of *khanapuri* is not of much importance in the Eastern Bengal districts, as the kanungo afterwards visits every field.

Field-work.

District.	Average number per square mile.		Rate per square mile.				
	Plots.	Tenures.	Cadastral survey.	Khanapuri.	Preliminary office work.	Total.	Field bujharat.
			Rs.	Rs.	Rs.	Rs.	Rs.
Standard rate ...	*1,000*	*280*	*110*	*37*	*18*	*165*	*86*
Mymensingh (during the year.)	815	223	84	29	13	126	70
(Up to date)...	931	218	101	37	17	155	74
Dacca (during the year.)	1,111	333	82	36	11	129	68
(Up to date)...	1,140	525	91	52	15	158	91
Rajshahi ...	1,311	370	104	40	14	159	88
Midnapore (during the year.)	1,178	...	110		33	143	Not done.
(Up to date)...	962	...	107		27	134	Not done.

62. The above statement shows the rates of cost of the different operations under field-work during the year under report and from the commencement up to date. Dacca, despite the large number of plots and interests, except for *burharat*, does not exceed the standard rate, even for the standard number of plots and interests. In the present year, this is probably due to the experiments referred to in the paragraphs dealing with Dacca.

The cheaper expenditure in Midnapore is due to the cheaper method in force; the preliminary office work also includes the partial finish of maps which is not done in East Bengal till a later stage.

Attestation.

District.	Average number per square mile.	Attestation. Rate per square mile.	Average number per square mile.	Objections. Rate per square mile.
	Tenancies.	Rs.	Objections.	Rs.
Standard rate ...	*250*	*66*	*15*	*27*
Mymensingh (during the year.)	167	68	15	9
(Up to date) ...	180	59	11	17
Dacca (during the year)	699	127	20	17
(Up to date) ...	613	115	15	16
Midnapore	166	69	6	7

63. Considering the large number of interests in Dacca, the large expenditure cannot be considered excessive, whilst that in Midnapore must be considered cheap taking into account the fact of the numerous difficulties which were encountered. The present figures afford a greater approximation to the standard rate than those in the case of field-work.

Fair copy.

Item.	Standard scale.	Faridpur.		Mymensingh.		Dacca.		Midnapore.		Jalpaiguri.	
		For the year.	Up to date.	For the year.	Up to date.	For the year.	Up to date.	For the year.	Up to date.	For the year.	Up to date.
	Rs. A.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Jamch	26 0	32 0 0	52 0 0	6 0 0	11 0 0	18	12	41	41	41	51
Statistics	10 0	8 0 0	12 0 0	6 0 0	8 0 0	13	6	...	...	5	13
16-inch maps ...	6 0	5 0 0	12 6 0	5 0 0	8 0 0	5	6	...	...	16	21
Printing	0 3 per Interest.	0 2 4	0 2 8	0 2 2	0 2 7	...	...	...	...	23* (fair copy by hand.)	25
Recovery	25 0	25 0 0	22 0 0	11 0 0	9 0 0	...	...	...	...	...	...

* Standard Rs. 36.

64. It is in these respects that Mymensingh bears out its reputation for being the cheapest settlement; with the exception of Dacca there has been a decrease all round on the totals up to date. On account of the conditions under which the remainder of the settlement is conducted *vanch* in Midnapore is a much more difficult operation than in East Bengal and therefore more expensive. A similar scrutiny was necessary in Jalpaiguri and hence the high cost rate; in that district also separate 16-inch maps are under preparation for *jotedars*.

Supervision.

District.	In year under report.		Up to date.	
	Allowed by standard rate	Actual.	Allowed by standard rate.	Actual.
	Rs.	Rs.	Rs.	Rs.
Mymensingh ...	1,15,200	1,02,353	5,56,800	4,65,216
Dacca	1,04,000	90,648	2,37,250	2,19,856
Rajshahi	65,425	48,314	65,425	54,476
Midnapore	1,32,256	59,704	2,35,581	96,126

Contingencies and Supplies.

	Rs.	Rs.	Rs.	Rs.
Mymensingh ...	70,400	49,789	4,35,200	2,74,288
Dacca	48,750	62,858	2,17,750	1,68,725
Rajshahi	62,808	15,282	62,808	27,547
Midnapore	1,11,591	46,554	2,10,683	1,30,413

65. The above table compares the cost of supervision and of contingencies and supplies in the settlements which are in full swing with the proposed standard rate. There is a saving on the proposed standard rate throughout, due to the fact that the full proposed staff has never been employed and there have been savings on account of the employment of Revenue Officers instead of gazetted officers. The large apparent saving in Midnapore is due to the same causes and to the non-employment of kanungoes for field *bujharat*. In contingencies and supplies a very substantial saving is apparent. Besides economy this is due to the fact that except in Midnapore and Dacca there has as yet been little expenditure on buildings, whilst in Mymensingh the expenditure on press, paper, etc., has not yet reached the normal level.

66. The general result is that there has been a substantial economy in the large settlements in full swing. The expenditure in Faridpur and Jalpaiguri has come under separate examination. In the minor settlements every attempt is being made to secure due economy, and during the present year an attempt will be made to secure uniformity of treatment and expenditure.

Minor Operations.

67. **Burdwan.**—A special settlement office in charge of a whole-time officer was located in Burdwan in 1912, when six applications from private parties for record-of-rights covering an area of about 10 square miles had accumulated in the Collectorate. Several new estates were subsequently added and during the year under report there were 17 estates with about 20 square miles in the hands of the special officer. Practically no area has been brought to final publication, but the area to be so published was only 1·14 square miles in the programme of the year. The arrear is due to the Damodar floods which affected several of the villages under operation and necessitated the employment of the Special Officer on relief work for some time.

The most noticeable feature of the settlement is the large number of rent-free disputes. About 10 per cent. of the total interests was claimed as rent-free, and every claim was disputed by the landlord. As each case involved detailed examination of numerous documents, this explains to some extent the high cost rate of *bujharat* and attestation.

68. **Bankura.**—There was no case of land revenue settlement in Bankura under my control during the year under report, nor was any private estate brought under survey and settlement. The only work to be done consisted of the disposal of 625 cases under sections 105 and 106 in respect of three estates, of which a final report had been submitted by the late Settlement Officer, Babu Nripendra Nath Roy, and this programme has been carried out satisfactorily by a Deputy Collector of the general line. Recovery work in respect of one estate was, however, pending as there was a difficulty in obtaining a staff who could work out an apportionment proposal. This difficulty has now been surmounted.

69. **Midnapore.**—In Midnapore, in addition to the district operations, minor settlements were conducted separately during the year by the Assistant Settlement Officer, Babu Bhubaneswar Sanyal. These have since merged in the district operations under the Settlement Officer. The entire programme consisting of case-work under sections 105, 106 and 108 was completed. Many complicated questions, such as status of the tenants, nature of tenancy, fixity of rents, &c., arose in the course of the case-work and were decided. In addition to the Tenancy Act Settlements, a settlement under the Regulations of the Uluberia roadside lands was undertaken.

70. **Hooghly.**—(*a*) **Land Revenue Settlements.**—There were three cases of settlement of land revenue under the Regulations. Of these, the work in two estates which were situated in the Uluberia Subdivision was conducted by the Subdivisional Officer of Uluberia, while the third estate was dealt with by the special Settlement staff. The work in all the three estates has been completed with the result that the Government revenue has been increased by Rs. 110, or about 15 per cent.

(*b*) **Settlements under the Bengal Tenancy Act.**—The total area dealt with since the formation of the special settlement office in Hooghly in 1904-05 is about 47 square miles. What remained of *jamh* and final publication was completed in the year under report, leaving case-work and recovery of costs as the main work of the year. At the close of the year 2,018 cases under sections 105 and 106 were pending out of 3,123 in the programme for the year, and Rs. 28,843 were outstanding for recovery of costs out of Rs. 57,728. The arrear in case-work was mainly due to the unfortunate illness for some time of the Settlement Officer, Babu Srimohan Das Gupta, and his subsequent death at the end of April. The cases under section 105 were keenly contested.

The work of recovery proceeded smoothly till the month of August when progress was hampered by the unusual floods in the river Damodar which affected a large portion of the area under recovery. About half of the outstanding balance relates to areas affected by the floods where collections have been postponed. The remainder of the balance was due from tenants who had proved obstructive during the recovery operation. Steps are being taken to expedite realisation in these cases.

A consolidated final report in respect of all the estates in the district brought under survey and settlement operations since 1900-01, drawn up by the late Settlement Officer, Babu Mahendra Nath Gupta, who held office till March 1913, has been submitted by the Collector and is now passing through the press.

71. **24-Parganas.**—The operations in the 24-Parganas were carried on by a Deputy Collector of the district staff. The actual outturn fell short of the programme in respect of survey and *khanapuri* and disposal of objections under section 103 A. The deficiency was due to excessive rainfall in the latter part of the year, necessitating an immediate stoppage of all work. All the estates dealt with during the year under report were zamindari estates, and in every case the proceeding was started at the instance of the landlord.

The question regarding the status of the raiyats in Estate Tambuldaha, situated in the area of the Sundarbans, was satisfactorily disposed of by compromises amongst the parties concerned by which the landlords agreed to recognise the raiyats as occupancy-raiyats, and the latter in their turn agreed to pay an enhancement of 2 annas per rupee.

A feature of the statistics is the large number of under-raiyats—2,084, as compared with the number of raiyats—4,321. Whatever the explanation is, this is by no means an uncommon feature in petty settlements where sufficient attention is not paid to status, but the stronger party's assertion that he is a raiyat is accepted without demur.

72. **Nadia.**—Of the estates under settlement during the year under report (1) fifteen were Government estates, (2) eight were temporarily-settled estates and (3) three were zamindari or permanently-settled estates. In the case of one large permanently-settled estate bought by Government at a revenue sale, the settlement has been postponed till the District Settlement operations. Pending these operations it is not proposed to undertake any new settlement work in this district. Of the remaining Government estates which were originally resumed *lakhiraj* lands, five are missing and efforts are being made to trace them out. One of the Government estates could not be settled owing to a pending civil suit. All the other Government estates were settled.

Of the eight temporarily-settled estates all but one were settled and the settlements sanctioned during the year. The remaining case is pending before the Board of Revenue.

In the three zamindari estates the work has been done according to programme. A large number of cases under sections 105 and 106 was disposed of in estate Taraf Santipur which included the municipal area of Santipur.

The maps in this district are prepared on antiquated lines, and no proper arrangements have as yet been made for providing the tenants with copies of the records or maps. Inspection is also insufficient. It is to be hoped that these defects, to which attention has already been drawn, will be removed.

There was no special officer, and a Deputy Collector of the Collectorate was in charge.

73. **Murshidabad.**—In Murshidabad survey and settlement operations were carried on in five resumed estates involving settlement of land revenue, and six Wards' estates with a total area of about 15 square miles, all under Chapter X of the Bengal Tenancy Act. There was no special or whole-time officer, and the Collector distributed the work amongst three Deputy Collectors who were vested with the necessary powers. The work, however, fell into arrears after draft publication in respect of the resumed estates and at *khanapuri* in respect of the Wards' estates, although two of the resumed estates were brought to the final stage. This is partially due to excessive rainfall on account of which the work had to be completely stopped in August. It does not appear, however, that these arrears will much affect the estimate for the entire operations. The work has not, however, been proceeding on right lines. Tenants have not been recorded because they did not come forward to claim any rights in their lands; *khanapuri* has been done in the houses of the amins, and inspection appears to have been insufficient. Steps have been taken to rectify this, and an officer has been appointed to look after all the settlement work in this district except that under the Subdivisional Officer of Lalbagh.

74. **Jessore.**—The programme was nearly completed. The work was done under the supervision of a Deputy Collector at Sadar and the Subdivisional Officer. There were seven zamindari estates and four Government and temporarily-settled estates with a total area of about eight square miles in which the proceedings were conducted under the Bengal Tenancy Act. One Government estate was resettled under the Regulations.

75. **Jessore-Khulna.**—The preparation of a record-of-rights for the Makimpur wards' estate, situated partly in Jessore and partly in Khulna, continued to be carried on under the Special Settlement Officer, Babu Akshaya Kumar Mukarji, Sub-Deputy Collector. The final publication of the portion (about 25 square miles) of the estate lying in the district of Jessore had been completed in the preceding year, but the cases under sections 105 and 106 were not set down for the year under report nor were they taken up. The Settlement Officer finished the attestation of the remaining portion of the estate with an area of 25 square miles which lay in the district of Khulna. 1,307 objections under section 103 A were also disposed of. On the whole good progress has been made.

76. **Khulna.**—There was no case of land revenue settlement in this district under the supervision of the Director of Land Records. Two estates and one tenure were under survey and record-of-rights under Chapter X of the Bengal Tenancy Act. The total area was 7·01 square miles. No special officer was entertained, the work being supervised by the Butwara Deputy Collector, Mr. D. L. Dey. In case-work he has been, for the convenience of the parties, assisted by the Sub-Deputy Collector of Satkhira. In respect of the two estates the programme was adhered to, except that in respect of the tenure the work could not be taken beyond the *khanapuri* stage as the tenants proved obstructive. In common with many other petty settlements, the draughtsmanship disclosed by the maps is very indifferent.

77. **Bakarganj.**—In Bakarganj the assessment of alluvion under Act IX of 1847 continued as a sequel to the district operations recently completed. A large area (66 square miles) was also under ordinary revision of land revenue.

(*a*) **Diara.**—Babu Hara Kishore Biswas, Deputy Collector, was in charge throughout the year. The programme of the year for *diara* work was to finish all the thanas, except a portion of Mehendigunge. But although the field work was practically finished, the final proceedings to be prepared for submission to the Board have been delayed by certain objections raised by the Agent of the Nawab of Dacca relating to the relay of Lt. Hodges' map of 1831. These will now, it is reported, be disposed of at an early date. Altogether 425 proceedings numbering 340 new estates have been drawn up on 81 rivers in the district, and the *diara* area proposed to be assessed with new revenue is about 30 square miles, the proposed revenue being Rs. 43,000.

The local officers have completed the work of proceedings for 130 estates, involving a revenue of Rs. 25,549.

(*b*) **Revision of Land Revenue.**—This was in the charge of the Khas Mahal Deputy Collector, Maulvi Saiyad Abdul Latif. The revision of land revenue included colonisation of certain Government estates with carefully selected *bonâ fide* cultivators. When this was done, new maps were prepared under the *killabandi* or *bargadagi* system (a system of demarcation of regularly shaped fields with pillars deeply embedded in the ground) while in ordinary revisional proceedings, the records and maps prepared during the district operations were only brought up to date by a field *bujharat* and attestation. Only 37 square miles out of the programme of 66 square miles have, however, been completed. This is partly due to an overestimate of probable outturn, and partly to the fact that the maps of the last settlement of Tushkhali (not done during the district operations) were found to require so many alterations as to necessitate a resurvey of a portion of the estate. Rent-rolls have been confirmed in 10 square miles and they give an increase of revenue from Rs. 5,326 to Rs. 7,914, or by 48·6 per cent. The large increase is due to the increased fertility of the soil, extension of cultivation, and to the policy adopted of raising the rates to within reach of the prevailing rates obtained by moderate landlords in the neighbourhood.

78. **Noakhali.**—Saiyid Altaf Ali, Deputy Collector, was in charge of the operations up till 3rd July 1913, when he was relieved by the second officer, Maulvi Amjad Ali. The programme was diffuse, comprising all the different stages of settlement from traverse to recovery in scattered portions of the mainland and the islands covering an area of 180 square miles. The area dealt with comprises 38 Government and Temporarily-settled estates. Some new traverse was removed from the programme on account of the proximity of the district operations and all the field-work and attestation were practically completed except for some five miles of *bujharat* in Dandra and other small estates. This was postponed on account of the water-logged nature of the area. There were three private estates, of which the most important, so far as the work was concerned, is the estate of Dandra which forms the most difficult area to be dealt with. Final reports were submitted in the case of four estates; in the case of Chakla Sandip the amount outstanding for recovery was fully realised; in Taluk Ram Kanta Saha the apportionment proposal was sanctioned by Government at the close of the year; whilst the other estates are pending at one stage or another. The attestation of Dandra will be taken up in the present year. Where performance has failed to keep pace with the programme, it is in the later stages, particularly in the revision of land revenue in which poor progress has been made, which is partially, though not altogether, due to the change of officers in July. What has been done has resulted in an increase of revenue from Rs. 10,259 to Rs. 14,161, viz., 38 per cent. The staff has recently been strengthened in order to cope with the difficulties of the Dandra estate, the settlement of land revenue, and to accelerate the completion of the area.

79. **Tippera.**—In Tippera there was no special officer. The programme consisting of only half a square mile in field work, one square mile in attestation and two square miles in final publication, was carried out by a small temporary establishment under the supervision of an officer of the regular district staff. The work was simple and presented no difficulties. Of the three estates measuring altogether only 363·65 acres which were under revision of land revenue, two with an aggregate area of 313·40 acres were completed.

80. **Dinajpur.**—No new operation was added during the year and the only pending work was the disposal of cases (1,432) under sections 105 and 106 and the recovery of costs. All the cases were disposed of by the Assistant Settlement Officer in charge of the work, but recovery was not completed as the apportionment order of Government was obtained only in July last when this officer went away on privilege leave. The total cost incurred was Rs. 1,848 but this cannot be considered high when compared with the large number of cases dealt with.

81. **Bogra.**—The only work done. and this was all that had to be done, was the disposal of a case under section 106 of the Bengal Tenancy Act which had been received back on remand. A large number of appeals in cases under section 105 were disposed of by the Special Judge during the year.

82. **Pabna.**—The pending work of recovery of cost was finished during the year, and there was no new addition to the programme.

83. **Darjeeling.**—The only survey and settlement operations that were carried out in the Darjeeling district were those of the Kolbong Government estate. It is only 13 miles from Darjeeling and comprises an area of 1,845 acres. The total expenditure for the operation was Rs. 1,182.

PART II.

84. **Transfer of control of petty settlements in West Bengal to the Director.**—The principal change in the year under report was the transfer to the control of the Director of all petty settlement operations in the Collectorates of West Bengal, for which any special establishment was employed, even a single amin. This had been the procedure in Eastern Bengal, where it had been found to work well. Though the result has been to place a good deal of extra work on the Director and his office, the result has been to bring to light a number of shortcomings which are being remedied. The first and foremost is slackness, particularly in inspection, by the officer in charge which is usually entirely inadequate. The second is bad draughtsmanship. This is usually explained away by the fact that it is a petty settlement, as if this was sufficient in itself. It is an indication, however, that the Director should make arrangements for an efficient supply of amins, and this matter is under consideration. The third is that proper arrangements are not always made for the distribution of copies of maps and records. Government has been asked for a definite order on this point so as to make it compulsory. The fourth is that insufficient attention is paid to status and that under-raiyats figure too largely in the records. The fifth is extravagance, particularly in the number of clerks kept at headquarters. Government has already passed orders which will tend to reduce the costs in such cases. One common distinction between the attitude of the people towards major as opposed to minor settlement operations is that, whilst in the former case they are welcomed by the tenants, cases are by no means uncommon of distinct obstruction by the tenants in the case of the latter. This is due partially to a fear, based on good grounds as a rule, that the latter proceedings are only a means towards an enhancement of rent. It is, however, I am inclined to think, sometimes due to a want of sympathetic interest by the officers in charge of the proceedings.

85. **Transfer of the administrative powers of the Board to Government.**—As a necessary corollary of the considerable modification in the constitution of the Board of Revenue, this Department has been brought directly under Government and some of the powers which had hitherto been exercised by the Board have been delegated to the Director. In respect of survey and settlement operations, the powers of the Board are now restricted to statutory functions, and it will only be addressed in regard to such matters as require its orders under the law.

86. **Amalgamation of Procedure.**—Practically no attempt was made during the year under report to amalgamate the Settlement Manuals of the two Provinces, pending a more thorough knowledge of the procedure of both parts of the Province. Draft rules under the Bengal Tenancy Act were, however, drafted by Mr. Jack, my predecessor in office, before he went on leave, and these are now under the consideration of Government. The work of the amalgamation of the Manuals will be taken up in the present year.

87. **Expenditure and Accounts.**—Orders have not yet been received on the proposals regarding the simplification of settlement accounts in major operations referred to in last year's report, but various orders have been received dealing with the accounts of petty settlements. These will necessitate some

revision of the forms at present in use in these settlements, and this matter is at present under consideration in connection with the revised Settlement Manual. A considerable burden of work has fallen this year both on the major Settlement Officers and the Director and his office in connection with the revised estimates which have been submitted from time to time. This will be simplified in future by the adoption of the standard rate proposed by Mr. Jack.

The good effect of this examination of expenditure is manifest in all the major settlements. The Settlement Officers are almost affected with an obsession for economy, and various experiments have been made, notably in the case of Rajshahi and Dacca, to introduce efficient systems which will take the place of more expensive systems. This economy can, however, be carried too far, and there is one aspect of the case in which from the suggestions which have been made from time to time, it would appear that this is a danger to be guarded against. I refer to printing. Almost every proposal is now being put to the touchstone of printing. If the proposal increases the cost of printing, it is to be negatived, whilst suggestions have been made which would diminish the value of the records merely in order to cheapen the cost of printing. I need only sound this note of warning.

88. **Maintenance of Boundary Marks.**—The details of the results of inspection of marks given in tabular form in Appendix X indicate the growing interest which District Officers are taking in their maintenance. Of the total number of marks inspected during the year nearly 86 per cent. were in fair order, 4 per cent. in damaged condition and 10 per cent. missing. The procedure for meeting the cost of repairing and restoring damaged or missing pillars in the East Bengal districts, as set forth in Appendix T to the Survey and Settlement Manual of 1900, was proposed to be replaced during the year by the introduction of the rules given in Chapter II, part IV, pages 210-16 of the Bengal Settlement Manual, 1908. Advance recoveries under Section 114 (2) of the Bengal Tenancy Act amounting to Rs. 883 were made for this purpose. An allotment of Rs. 318-11-5 was also made for the expenditure likely to be incurred in the maintenance of marks in some districts comprised in the Presidency and Burdwan Divisions.

89. **Utilization of settlement records.**—The reports received from the local officers show that the survey and settlement records continue to be freely utilized by the civil and criminal courts and by revenue officers in the several branches of the district administration as occasion arises. Survey maps were utilized by the police in preparing sketches of the scenes of crimes. It is reported that the insertion of survey numbers in documents presented for registration in the registration offices is generally insisted on by the Sub-Registrars in respect of areas surveyed and settled. The description of the Commissioner of Dacca of the records as the "People's charter" is peculiarly apt.

90. **Final Reports.**—The Bakarganj Final Report is still in the press. The Midnapore Final Report on the recent operations in Government and temporarily-settled estates and some zamindari estates has been submitted to Government. No other final report of any settlement of importance and magnitude was received during the year.

91. **Training of Junior Officers.**—The training camp for junior officers in the Executive Services was attended by 11 Civilians, 12 Deputy Collectors, 13 Sub-Deputy Collectors and 9 Assistant and Deputy Superintendents of Police. The training camp was located at Netrokona under the supervision of the Settlement Officer of Mymensingh. It was, as usual, very successful, and the training was valuable not only from the survey and settlement point of view, but from the point of knowledge of the people and the country it afforded. A class for training Sub-Inspectors of Police in survey and settlement work in order to give them a proper insight into the rights of the people regarding land and also into the record was also opened in Dacca. This experiment has proved so successful that it is proposed to continue it from year to year.

92. **Training of Munsifs.**—Out of the four Munsifs who joined the Settlement Department in October 1911, three reverted to general duty in June 1913 on completion of their training, and the fourth, Babu Madhu Sudan Roy, was retained till October 1913 as he was engaged on

some intricate work. The Munsifs have gained useful experience in the course of their deputation. In the beginning of the field season of the year 1912-13 seven more Munsifs were deputed for training.

93. **Training of Kanungos.**—A class was opened in Dacca in August and September for the training of kanungos. Twenty-four candidates attended the class, of whom 17 were provided with appointments. Of those appointed, 14 were Hindus and 3 Muhammadans. It is difficult to find Muhammadans sufficiently qualified for the work.

94. **Promotions and prospects.**—During the year under report Babu Surendra Nath Banarji, Sub-Deputy Collector, was made a Deputy Collector, and Babu Nishi Kanta Basu, Kanungo, was made a Sub-Deputy Collector. The question of the prospects of kanungos referred to by Mr. Jack in last year's report is under the consideration of Government.

95. **Tours.**—As usual a large portion of the year was spent by the Directors on tour. Mr. Jack was on tour for 84 days and I was on tour for 72 days during the hot weather and rains. All the principal settlements were visited twice, whilst all except four of the districts in which minor operations were in progress were visited at least once.

96. **Settlement Staff.**—The Settlement Staff in the Province consisted of 10 Civilians, 30 Deputy Collectors, 11 Munsifs, 49 Sub-Deputy Collectors, 7 "outsider" Assistant Settlement Officers, 22 Revenue Officers and 223 kanungoes. Mr. Sachse was indefatigable in his inspection of field-work and brought the season to a close successfully. He deserves special thanks for his successful organisation of the officers' training camp. Mr. Milligan's difficult task in Jalpaiguri is successfully approaching an end, and steps are being taken towards the preparation of the final report. Mr. J. W. Nelson organised the Rajshahi settlement with success, whilst a special tribute is due to Mr. Thompson for the able manner in which he conducted the operations during Mr. Nelson's absence. Mr. Jameson took over a heavy task in Midnapore, to which he has addressed himself with considerable zeal. Mr. Ascoli's capacity for organization was again demonstrated in Dacca, while Mr. Prance is to be congratulated on the scrupulous care and attention with which the Faridpur Settlement is being concluded. It is difficult to select from others who have done good work, but the following may be mentioned :—

Deputy Collectors.

Khan Bahadur Maulvi M. A. Momim.
Mr. P. M. Robertson.
Babu Mahendra Nath Gupta.
„ Shital Chandra Chatarji.
„ Hara Kishore Biswas.
„ Gyanendra Nath Ray.
Maulvi Syed Moazumuddin Hussain.
„ Muhammad Mahmud.
Babu Karali Charan Gangali.
Babu Sata Manyu Mukharji.
„ Surendra Nath Banarji.
„ Bijay Bihari Mukharji.
„ Rampada Chattarji.
Mr. A. J. Harris.
Maulvi Syed Abdul Latif.
Mr. N. R. Mukharji.
Babu Hiranya Kumar Das Gupta.
Maulvi Kabiruddin Ahmed.

Munsifs.

Babu Madhu Sudan Roy.
Babu Subodh Kumar Bhattacharjya.

Sub-Deputy Collectors.

Babu Lal Mohan Bose.
„ Kalipada Maitra.
„ Sudhir Chandra Ghose.
„ Ramesh Chandra Sen.
„ Akshay Kumar Mukharji.
„ Hira Lal Sen.
„ Anath Bandhu Chatarji.
Babu Kshiti Nath Ghosh.
„ Upendra Kumar Mitra.
„ Chinta Haran Das Gupta.
„ Brajendra Nath Das Gupta.
Mr. A. K. Ghose.
Babu Raicharan Pal.

Technical Adviser.

Mr. I. Newton.

97. In conclusion I desire to convey the thanks of the department to the Director of Surveys for the assistance which he has extended to both the Settlement Officers and myself. I also take the opportunity of thanking the Commissioners and District Officers for the sympathy and cordial co-operation which they have always extended to the department, despite the demands for official facts and figures with which the existence of the department necessarily burdens them.

I have the honour to be,

SIR,

Your most obedient servant,

M. C. McALPIN,

Offg. Director of Land Records, Bengal.

APPENDICES.

[*N. B.*—Figures in these Appendices which do not agree with those in the last year's Report are revised figures.]

APPENDIX I.

PROGRESS OF SURVEY AND THE PREPARATION OF A RECORD-OF-RIGHTS IN THE PROVINCE.

Summary.

NAME OF DISTRICT.	Area (excluding large rivers).	RESERVED FOR. Area.	RESERVED FOR. Scale and date of survey.	UNSETTLED WASTE AT THE DISPOSAL OF GOVERNMENT. Area.	UNSETTLED WASTE AT THE DISPOSAL OF GOVERNMENT. Scale and date of survey.	SETTLED AREA TO WHICH THE BENGAL TENANCY ACT HAS NOT BEEN EXTENDED. Area.	SETTLED AREA TO WHICH THE BENGAL TENANCY ACT HAS NOT BEEN EXTENDED. Date of cadastral survey under other Acts.	SETTLED AREA TO WHICH THE BENGAL TENANCY ACT HAS BEEN EXTENDED. Total.	Area in which a record-of-rights— Has been finally published.	Is in course of preparation.	Remains to be prepared.
1	2	3	4	5	6	7	8	9	10	11	12
1. Burdwan	2,678	...	...	...	...	...	.....	2,678	75	19	2,584
Birbhum	1,740	...	...	...	...	...	.....	1,740	209	...	1,531
Bankura	2,621	...	...	...	...	...	.....	2,621	51	...	2,570
4. Midnapore	5,407	...	...	...	...	...	.....	5,407	1,060	2,025	2,313
5. Hooghly	1,723	...	...	...	...	...	.....	1,723	47	...	1,676
6. 24-Parganas ...	4,844	1,768	...	1,191	...	...	.....	1,885	117	25	1 743
7. Calcutta	8	...	...	...	...	8	1911, in respect of 4 square miles.	...	...	...	...
8. Nadia	2,725	...	...	...	...	...	.....	2,725	45	8	2,672
9. Murshidabad ...	2,014	...	...	...	...	...	.....	2,014	130	11	1,873
10. Jessore	2,925	...	...	...	...	...	.....	2,925	80	3	2,842
11. Khulna	4,785	2,080	...	...	...	...	.....	2,676	219	25	2,431
12. Dacca	2,756	...	...	...	...	...	.....	2,750	89	2,661	...
13. Mymensingh ...	6,356	...	...	...	...	...	.....	6,356*	1,734	3,446	1,676
14. Faridpur	2,451	...	...	...	...	...	.....	2,451	823	1,628	...
15. Ba ikarganj	3,490	121	16" = 1 mile district operations, 1905-1906.	516	16 = 1 mile district operations.	416	.....	2,427	2,427	...	...
16. Chittagong ...	2,422	564	Surveyed in outline only 4" scale, 1888-1898.	496	16 = 1 mile, 1888-1898.	...	.....	1,442	1,374	...	68
17. Noakhali	1,649	...	...	...	...	...	.....	1,649	557	163	944
18. Tippera	2,499	...	...	...	...	...	.....	2,499	990	123†	1,386
19. Rajshahi	2,515	...	...	...	...	...	.....	2,515	68	842	1,706
20. Dinajpur	4,132	...	...	...	...	...	.....	4,132	517	...	3,615
21. Jalpaiguri	2,862	505	4" scale, season 1907-1910.	172	16 = 1 mile, scale, season 1907-1910.	382	4" scale, season 1907-1910.	1,853	448	1,405	...
22. Rangpur	4,090	...	...	...	...	...	.....	4,090	143	...	3,947
23. Bogra	1,359	...	...	...	...	...	.....	1,359	53	...	1,306
24. Pabna	1,830	...	...	...	...	...	.....	1,830	68	122†	1,640
25. Malda	1,832	...	...	...	...	...	.....	1,832	88	...	1,744
26. Darjeeling	1,164	438	1 mile = 4", 1903.	22	...	706	Kalimpong, 1909-1908. Siliguri, 1897-1898. West Terai, 1901-1907. Act V of 1875.	...	...	...	...
Total ...	73,031	5,483	...	2,337	...	1,511	.....	63,699	10,921	12,496	40,282

* Includes 122 square miles of Diara being done from Faridpur.
† This consists of the Diara work being done from Faridpur.

APPENDIX II.

General progress in Survey and Settlement work during the year ending the 30th September 1913.

District Operations.

Branch of work.	Unit of report.	Mymensingh.					Dacca.					Faridpur.				
		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done—		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done—		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done—	
					In the year under report.	Up to date.				In the year under report.	Up to date.				In the year under report.	Up to date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		1907	6,631(a)	...	...	...	1905	3,259(b)	...	...	...	1904	2,696(c)	...	...	...
1. Traverse survey (under Settlement officer).	Square miles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,064
2. Cadastral survey	Ditto	...	...	798	798	4,480	...	...	1,050	892	2,422	...	...	...	...	2,696
3. Khanapuri	Ditto	...	...	798	798	4,480	...	...	1,050	846	2,371	...	...	...	...	2,696
	Plots	645,737	645,737	2,935,937	...	...	960,000	808,407	2,658,643	...	...	...	...	...	...	3,100,000
4. Preliminary office work	Square miles	...	...	798	798	4,480	...	...	1,050	826	2,351	...	...	...	...	2,696
	Ditto	...	...	855	819	4,432	...	...	1,050	822	2,301	...	...	...	...	2,696
5. Bojhaces	Plots	680,952	677,664	3,352,144	...	...	950,000	837,433	2,623,800	...	...	...	...	...	...	3,100,000
	Interests	291,850	291,850	1,081,944	...	...	287,500	275,234	1,208,646	...	...	...	...	...	...	1,600,000
6. Attestation	Square miles	1,260	1,074	3,633	...	...	845	681	1,491	...	...	...	...	...	...	2,696
	Interests	354,117	349,915	899,191	...	...	...	676,317	913,753	...	...	...	...	...	...	1,600,000
7. Draft publication	Square miles	1,260	1,074	3,633	...	...	845	680	1,494	...	...	...	...	...	...	2,696
8. Objection under section 103A	Ditto	1,260	1,054	3,623	...	...	845	813	1,645	...	...	5	5	6	6	2,696
	Cases	...	...	...	...	...	...	...	16,374	16,346	21,541	...	...	214	214	69,744
9. Final office work—Jamch	Square miles	1,320	1,321	2,695	...	...	...	...	...	805	1,445	...	...	353	353	2,696
Statistics	Ditto	1,320	843	2,667	...	...	...	...	...	891	1,491	...	...	1,325	1,198	2,569
Preparation of 16" maps ...	Ditto	1,260	1,024	2,118	...	...	650	371	625	...	...	1,355	1,195	2,466	...	...
Topo. maps	Ditto	390	...	...	...	...	...	...	...	...	...	1,000	956	1,773	...	...
Preparation of final records	Ditto	720	854	1,863	...	...	...	...	...	...	...	1,490	1,373	1,928	...	...
	Interests	144,000	171,900	287,622	...	...	...	...	...	...	...	782,400	732,963	1,383,056	...	...
10. Final publication	Square miles	800	883	1,224	...	...	...	...	...	...	...	597	491	822	...	...
11. Recovery of costs	Ditto	800	640	971	...	...	...	...	...	...	...	756	544	756	...	...
	Amount Rs.—(a) Voluntary ...	...	...	284,000	229,044	318,313	...	...	...	...	...	...	...	542,000	417,492	549,996
	(b) By certificate ...	...	...		1,035	1,036	...	...	...	...	...	...	...		16,073	17,492
12. Cake work under section 103A. ...	Cases	...	...	101	41	45	...	...	...	...	...	...	...	705	14	14
,, ,, 105	Do.	...	...	1,007	504	635	...	...	...	...	...	...	...	13,712	1,466	1,466
,, ,, 106	Tenancies	Not supplied			...	...	...	...	...	...	...	...	...	28,228	1,693	1,693
	Do.	...	...	630	279	328	...	...	...	...	...	...	...	7,702	489	489

(a) Includes Pabna and other Diaras. (b) Includes diaras of bordering districts. (c) Includes 123 square miles of Pabna Diara and 129 square miles of Tippera Diara.

General progress in Survey and Settlement work during the year ending the 30th September 1913.

District Operations—*concluded.*

Branch of work.	Unit of report.	Jalpaiguri.					Rajshahi.					Midnapore.				
		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles, under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.
		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1. Traverse survey (under Settlement Officer).	Square miles	1906	2,036	...	...	...	1910	2,616	...	...	...	1910	4,133	...	...	...
2. Cadastral survey	Ditto	...	...	...	...	2,037*	...	...	842	842	842	...	...	1,069	1,069	2,025
3. Khanapuri	Ditto	...	...	...	...	2,037	...	...	842	842	842	...	...	1,069	1,069	2,025
	Plots	...	...	...	...	161,764	...	...	1,046,334	1,046,334	1,046,334	...	...	1,259,301	1,259,301	1,048,632
4. Preliminary office work	Square miles	...	...	...	...	2,037	...	...	842	842	842	...	...	1,069	754	1,710
5. Bajharat	Ditto	...	...	...	...	2,037	...	...	842	716	716	...	...	956	956	956
	Plots	...	...	...	...	161,764	...	...	944,782	938,896	938,896	...	...	689,332	689,332	689,332
	Interests	...	...	...	...	250,474	...	...	268,876	264,876	264,876	...	...	159,112	159,112	159,112
6. Attestation	Square miles	...	...	6	6	2,037	...	...	...	...	...	...	...	956	956	956
	Interests	...	...	664	464	250,474	...	...	...	...	...	...	...	159,112	159,112	159,112
7. Drill publication	Square miles	...	...	6	6	2,037	...	...	...	...	...	...	...	956	956	956
8. Objections under section 103A	Ditto	...	...	302	102	2,037	...	...	...	...	...	...	...	...	...	...
9. Final office work—	Cases	...	...	2,531	2,531	9,144	...	...	...	...	...	...	...	6,106	6,818	6,818
Jamah	Square miles	...	...	573	461	1,925	...	...	...	...	...	...	...	956	53	53
Statistics	Ditto	...	...	1,439	806†	1,994	...	...	...	...	...	...	...	...	...	...
Preparation of 16" maps	Ditto	...	...	1,622	287	1,493	...	...	...	...	...	...	...	...	...	...
Topo. maps	Ditto	...	...	...	...	...	...	...	250	250	250	...	...	...	...	...
Preparation of final records	Ditto	...	...	2,037	987	987	...	...	...	...	...	...	...	...	...	...
	Interests	...	...	250,474	70,960	70,960	...	...	...	...	...	...	...	...	...	...
10. Final publication	Square miles	...	...	2,037	448	448	...	...	...	...	...	...	...	...	...	...
11. Recovery of costs	Ditto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Amount Rs.— (a) Voluntary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(b) By certificate	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. Case work under section 108A	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
,, ,, ,, ,, 105	Do.	...	...	2,208	...	...	...	...	...	...	...	...	...	...	...	...
	Tenancies	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
,, ,, ,, ,, 106	Cases	...	...	228	...	...	...	...	...	...	...	...	...	...	...	...

* Excluding 842 square miles of tea, and 505 of forest and 2 of topo.

† Also partial statistics of 134 square miles left over in the previous year.

General progress in Survey and Settlement work during the year ending the 30th September 1913.

Minor Operations.

Branch of work.	Unit of report.	Birbhum.			Burdwan.			Bankura.			Midnapore.			Hooghly.			24-Parganas.			Nadia.			Murshidabad.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
							Rs.			Rs.			Rs.			Rs.			Rs.						Rs.
1. Traverse survey under Settlement Officer).	Square miles ...	...	.....	...	3	3	...	...	...	...	...	...	.....	...	...		4	4		4	4	...	11	11	745
2. Cadastral survey ...	Ditto ...	...	.....	...	4	4	...	...	...	...	...	...	.....	-1	+1	203	4	...		7	7	...	11	11	1,911
	Ditto ...	...	.....	...	...	...	...	...	...	...	...	...	.....	-1	+1		5	2		8	7	...	11	6	382
3. Klinagrid	Plots ...	...	.....	...	10,700	12,270	...	...	...	...	...	...	.....	316	316		5,000	3,000		11,146	10,712	...	...	...	...
4. Preliminary office work	Square miles ...	...	.....	...	1	1	...	...	...	...	...	...	.....	...	...	.....	6	2		...	...	...	...	...	...
	Ditto ...	...	.....	...	13	12	...	...	...	...	...	...	.....	...	...	.....	6	2		...	...	...	...	...	...
5. Bujharat	Plots ...	...	.....	...	...	19,413	...	...	...	...	...	...	.....	...	...	.....	5,000	3,000		...	...	...	...	...	...
	Interests ...	...	.....	...	...	4,091	...	...	...	...	...	...	.....	...	...	.....	1,686	686		...	...	...	...	...	...
6. Attestation	Square miles ...	...	.....	...	12	13	...	...	...	...	...	...	.....	...	...	.....	8	4		8	4	...	11	1	...
	Interests ...	...	.....	...	4,838	4,091	...	...	...	...	...	...	.....	...	...	.....	707	686		...	...	...	...	...	...
7. Draft publication ...	Square miles ...	...	.....	...	12	0	...	...	...	...	...	...	.....	...	...	.....	2	2		2	2	...	1	1	...
8. Objection under section 103A.	Ditto ...	...	.....	...	...	...	...	...	...	...	...	...	.....	...	...	.....	2	2		2	2	...	...	...	...
	Cases	...	.....	...	1,000	189	...	...	...	...	...	...	.....	...	...	.....	156	53		145	89	...	...	...	...
9. Final office work—																									
Jamch	Square miles ...	...	.....	...	7	0·18	...	...	...	...	...	...	.....	3	3	521	5	5		...	...	...	...	...	...
Statistics	Ditto ...	...	.....	...	7	0·18	...	...	...	...	...	...	.....	...	...	.....	5	...		...	...	...	...	...	...
Preparation of 16" maps.	Ditto ...	...	.....	...	7	0·18	...	...	...	...	...	...	.....	...	...	.....	5	5		...	...	...	...	...	...
Topo. maps	Ditto ...	...	.....	...	...	...	...	...	...	...	...	...	.....	...	...	Included in supervision.	...	...	4,107	...	...	...	...	...	...
Preparation of final records.	Ditto ...	2	2	...	7	0·18	...	...	...	...	...	...	.....	...	...	.....	5	5		...	...	...	4	3	...
	Interests ...	...	.....	...	2,535	149	...	...	...	...	...	...	.....	...	...	.....	361	349		...	...	...	...	...	...
10. Final publication ...	Square miles ...	2	2	...	1	·18	...	...	...	...	...	...	.....	6	5	.....	5	5		4	3	...	...	...	...
11. Recovery of costs ...	Ditto ...	...	.....	...	...	...	...	...	...	...	...	...	...	28	18	.....	5	...		...	...	...	...	...	...
	Amount Rs.—																								
	(a) Voluntary	7,261	7,149	6,590	...	...	...	...	...	...	...	...	.....	57,728	39,651 (including Rs. 10,904 in deposit.)	1,839	21,936	19,069		1,214	1,214	...	...	...	...
	(b) By certificates.			559	...	...	...	...	...	...	...	...	.....												
12. Case work under section 103A.	Cases	53	53	...	...	...	...	...	...	...	54	54	...	56	16	.....	...	...		...	...	...	...	...	...
Case work under section 105.	Do.	1,589	1,640	...	...	...	...	585	585	787	1,942	1,942	8,037	2,219	1,295	9,021	976	280		201	201	...	...	...	...
Case work under section 106.	Do.	192	192	...	...	...	...	49	40		257	257		904	723		92	13		106	106	...	...	...	...
13. Revision in temporarily-settled areas—																									
(a) Draft publication, section 103A.	Square miles ...	...	.....	...	...	...	...	...	...	...	...	...	.....	...	...	.....	...	...	...	...	...	...	...	...	...
(b) Final publication	Ditto ...	...	.....	...	...	...	...	...	...	...	...	...	.....	...	...	.....	...	...	...	...	...	...	...	...	...
Total cost ...	Amount, Rs.	...	.....	14,053	...	...	738	...	...	787	...	...	8,360 (including Rs. 1,323 for contingencies).	...	...	14,121 (including Rs. 7,351 for supervision).	...	...	4,107	...	...	1,027	...	...	2,598 (including Rs. 470 for supervision.)

A.

General progress in Survey and Settlement work during the year ending the 30th September 1913.

Minor Operations—*concluded.*

RANGE OF WORK.	Unit of report.	JESSORE.			KHULNA.			BAKARGANJ.			NOAKHALI.			TIPPERA.			DINAJPUR.			DARJEELING.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
		27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
				Rs.			Rs.			Rs.			Rs.			Rs.			Rs.			Rs.
1. Traverse survey (under Settlement Officer).	Square miles...	...	...	...	1	1		...	...	...	48	33	1,800	·5	·5		...	...	...	3	3	
2. Cadastral survey ...	Ditto ...	3	3	...	1	1	1,076	16	16	1,729	75	81	6,213	·3	·3	Not paid during the year under report.	...	...	...	3	3	
3. Khanapuri	Ditto ...	3	3	...	1	1		...	...	...	75	81		·5	·5		...	...	...	3	3	
	Plots	4,905	4,905	...	1,037	1,037		66	47	4,889	56,330	68,161	2,886	855	855		...	...	...	...	...	
								43,923	27,997													
4. Preliminary office work	Square miles...	3	3	...	3	29		...	...	...	86	92	2,149	·5	·5		...	...	...	3	3	
	Ditto ...	3	3	...	29	29		...	...	...	92	92	...	·5	·5		...	...	...	3	3	
5. Bujharat ...	Plots	4,905	4,905	...	29,098	29,019		Included in khanapuri		...	65,726	95,829	7,140	855	855	14	...	...	...	...	...	
	Interests ...	...	...	...	...	...		...	...	...	21,177	30,291		221	221		...	...	...	...	...	
6. Attestation ...	Square miles	4	4	...	29	29		66	37	...	40	42		1	1		...	...	...	...	...	
	Interests ...	...	...	...	29,098	29,019	2,048	14,726	7,125	340	6,000	6,001	3,260	...	...	8	...	...	...	3	3	
														434	434		...	...	...	...	...	
7. Draft publication ...	Square miles	4	4	...	30	29		66	15	...	40	42		1	1	.....	...	...	...	3	3	
8. Objection under section 103A.	Ditto ...	...	...	...	30	29		...	...	...	31	26	274	1	...	.....	...	...	...	...	...	
	Cases	261	261	...	1,483	1,479		...	...	...	383	377		6	...	.....	...	...	...	...	...	
9. Final office work—																						
Jamb	Square miles...	3	3	...	17	16		66	8	271	42	1		4	3	22	...	...	...	...	...	
Statistics	Ditto ...	3	3	...	7	6		66	...	...	42	22		...	...	.....	...	...	...	3	3	
Preparation of 16" maps.	Ditto ...	...	...	...	7	6		3	3	363	46	24		9	8	53	...	...	388	...	...	1,129
Topo. maps ...	Ditto ...	...	...	...	7	6		66	8	42	...	...		...	...	.....	...	...	...	3	3	
Preparation of final records.	Ditto ...	3	3	...	...	...		...	...	...	23	...		3	...	.....	...	...	...	...	...	
	Interests ...	...	...	...	...	...	260	23	23	710	6,004	...	362	2,000	636	53	...	...	...	3	3	
10. Final publication ...	Square miles	3	3	...	7	6		...	...	...	33	16		3	2	7	...	...	...	3	3	
11. Recovery of costs ...	Ditto ...	...	...	...	...	...		...	...	...	1	1		5	...	.....	...	...	...	...	...	
	Amount Rs.—																					
	(a) Voluntary	...	...	...	...	...		...	...	...	...	...		...	...	.....	...	...	...	...	...	
	(b) By certificates.	...	...	...	...	...		...	...	...	288	285	144	...	...	.....	...	...	...	...	...	
12. Case work under section 103A.	Cases	...	...	...	112	112		...	...	...	...	...	.....	...	...	.....	...	...	...	...	...	
Case work under section 105.	Do.	...	164	...	12	9	622	...	...	...	...	...	.....	204	32	.....	1,024	1,024	1,890	...	...	
Case work under section 106.	Do.	...	...	...	3	2		...	...	...	...	...	.....	...	...	.....	408	408		...	...	
13. Revision in temporarily-settled areas—																						
(a) Draft publication, section 103A.	Square miles...	1	1	...	...	...	...	66	15	...	5	5	Included in items 6–8 and 9–10.	...	...	.....	...	...	...	...	...	
(b) Final publication	Ditto ...	1	1	...	...	...	...	23	10	...	10	10		...	...	.....	...	...	...	...	...	
Total cost ...	Amount Rs. ...	...	...	1,908	...	...	4,321	...	...	8,853	...	...	22,910	...	...	497 (including an revision.)	...	...	1,898	...	...	1,132

APPENDIX III.

Return of Disputes and Inspections during the year ending the 30th September 1913.

DISTRICT.	Area in square miles of the tract surveyed during the season.	PERSONAL PORTAL IN LINEAR MILES—			Independent portal to linear miles.	Total number of plots inspected.	NUMBER OF PLOTS TESTED—			Number of boundary disputes decided.	NUMBER OF INTERNAL DISPUTES DECIDED—	
		By gazetted officers.	By Kanungos and Head Inspectors.	By Inspectors.			By gazetted officers.	By Kanungos and Head Inspectors.	By Inspectors.		During khanapuri and bujharat.	During attestation.
1	2	3			4	5	6			7	8	
Burdwan	4	1	...	6	5	12,220	849	...	1,324	12	...	2,632
Midnapore (district operations).	1,969	332	605	2,707	1,172	1,259,801	18,119	26,206	1,65,089	276	7,500	15,653
Hooghly	1	...	...	...	...	315	16	...	...	1	...	...
24-Parganas ...	...	...	...	...	...	3,000	...	...	...	...	...	102
Nadia	7	...	...	...	...	10,712	500	389	...	3	...	37
Murshidabad ...	11	4	...	...	...	491	...	...	...	1	...	4
Khulna	1·	·21	...	3	·55	1,037	26	...	162	...	...	892
Dacca	892	110	2,823	...	...	808,407	...	23,228	...	4	(a) 611 (b) 1,436	9,700
Mymensingh... ...	788	363	1,755	...	...	645,737	Figures not known. All plots are tested at bujharat.			800	Statistics not collected.	
Bakarganj	16	...	76	...	...	27,997	...	...	...	...	25	...
Noakhali	81·5	...	191	...	3	88,161	2,631	20,015	...	...	1,962	42
Tippera	·5	1·25	...	...	...	855	855	...	...	...	...	4
Rajshahi	842	204	2,993	...	...	1,046,584	4,651	92,285	...	64	2,008	...

(a) During khanapuri.
(b) During bujharat.

APPENDIX IV.

Progress in Revision of Land Revenue during the year ending the 30th September 1913.

District.	Number of estates under revision.	Total area in acres.	Area in which rent-roll has been drafted—published—		Objections under section 104E—		Area in which rent-roll confirmed under section 104F.	Effect on the rental of raiyats.									Number of estates in which record-of-rights finally published.	Area in which record-of-rights finally published.	Number of estates in which revision of land revenue completed.	Financial result.			
										Amount of increase due to—					Amount of decrease due to—								
			In the year under report.	Up to the end of the year under report.	Pending for decision.	Decided.		Old rent.	New rent.	Increase in size.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease in area.	Deterioration of the soil.				Old revenue.	New revenue.	Percentage of increase of rent.	Percentage of increase of revenue.
1	2	3	4		5	6	7	8									9	10		11		12	13
								Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.					Rs.	Rs.		
Midnapore ...	...	2,064	2,103	861	...	[a]878	164	.....	.....	.....	.....	...	.....	...	...	...	164	10		4,543	4,149	.....	...
Hooghly ...	5	319	...	...	...	...	...	715	825	.....	.....	...	.....	...	...	...	182	3		715	825	15	15
Nadia ...	23	13,094	...	16,690	...	...	...	980	1,049	.....	69	...	.....	...	...	...	...	17		1,728	1,958	7·04	13·19
Murshidabad.	5	2,811	...	2,035	...	1	2,035	3 142	3,969	.....	.....	827	.....	...	...	...	2,035	2		2,086	3,307	26·32	60
Jessore ...	4	982	...	669	...	...	415	1,127	1,083	.....	.....	...	.....	...	44	...	1	3		1,127	1,275	.....	13·13
Dacca ...	3	1,191	3	2	...	...	2	350	2,718	1,982	332	...	.....	...	...	...	...	3		364	2,718	665	665
Mymensingh.	45	13,260	6,173	6,173	83	83	...	.....	.....	.....	.....	...	.....	...	...	...	...	...		.....	.....	.....	...
Faridpur ...	38	40,046	16,947	40,046	...	1,457	31,445	44,643	65,326	.....	8,352	3,165	.....	10,829	106	...	10,248	33		34,889	61,227	48	75
Bakarganj	24	56,331	...	14,081	157	...	6,400	5,380	7,920	.....	.....	...	.....	...	..	...	6,400	13		6,325	7,014	48·5	42·6
Darjeeling	1	1,845	1,845	1,845	...	...	...	978	1,522	.....	.....	...	.....	...	..	...	1,845	1		.....	1,379	.....	...
Noakhali ...	32	77,929	1,472	8,128	16	11	6,656	18,122	22,365	.....	.....	...	3,243	..	...	...	6,656	3		10,239	14,161	39·76	38·09
Tippera ...	2	864	313	...	...	...	313	540	678	.....	.....	...	.....	...	...	...	313	2		500	537	25·56	7·4
Jalpaiguri	5	6,65,800	67,640	4,91,520	39	2,432	1,91,360	53,322	70,985	.....	.....	...	.....	...	...	...	...	...		2,00,487	2,51,724	48·6	25·5

[a] Including 677 objections under regulations.

APPENDIX V.

Return of Rent Settlement in areas not under revision of Land Revenue during the year ending the 30th September 1913.

District.	Commutation under section 40.			Proceedings under section 109 (c) (West Bengal districts only.)				Proceedings under section 105.											
													Analysis of variations in the case of raiyats.						
													Amount of increase due to—					Amount of decrease due to—	
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.	Class of tenants.	Number of tenants for whom a fair rent has been determined.	Former rent.	New rental.	Difference, per cent. + or −.	Increase of area.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease of area.	Deterioration of the soil.
1.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Rs.	Rs.	Rs.			Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.		
Birbhum	3	1	2	...	...	...	...	Raiyats	3,677	3,066	3,533	+ 17·4	...	...	...	...	...		
Midnapore (petty cession).	...	...	...	...	...	...	...	(a) Tenure-holders	147	...	261	...	...	...	...	...	...		
								(b) Raiyats	1,795	11,175	14,392	29	1,471	...	...	1,746	...		
								(c) Under-raiyats	...	...	...	...	...	...	...	...	...		
Midnapore (district operations).	...	...	...	10	81	...	81	(a) Tenure-holders	...	...	...	...	...	...	...	...	...		
								(b) Raiyats											
								(c) Under-raiyats											
Hooghly	...	...	...	...	...	...	...	(a) Tenure-holders	172	...	669	...	...	...	...	...	...		
								(b) Raiyats	1,122	6,035	5,742	+ 13	85	...	...	819	...		
								(c) Under-raiyats	...	...	...	...	...	...	...	...	...		
24-Parganas	...	...	...	...	...	...	...	(a) Tenure-holders	19	140	159	+ 13·5	159	...	...	...	...		
								(b) Raiyats	269	6,935	7,930	+ 14·1	7,930	...	...	...	...		
								(c) Under-raiyats	1	...	...	...	...	...	...	...	...		
Nadia	...	...	...	...	...	...	...	Raiyats	58	278	478	+ 71·94	...	...	...	141	99		
Jessore	...	...	...	...	...	...	...	(a) Tenure-holders	...	...	...	...	...	...	...	...	...		
								(b) Raiyats	162	916	1,061	+ 37·5	217	...	...	1,043	...		
								(c) Under-raiyats	...	...	...	...	...	...	...	...	...		
Khulna	...	...	...	...	...	...	...	(a) Tenure-holders	5	264	1,230	+ 93	...	...	...	...	...		
								(b) Raiyats	4	285	369	+ 29	104	...	...	...	...		
Mymensingh	...	...	...	...	...	...	...	(a) Tenure-holders	...	...	...	...	...	...	...	...	...		
								(b) Raiyats	9,676	1,01,377	1,20,910	+ 19	9 per cent.	...	...	...	10 per cent.		
Faridpur	...	...	...	...	...	...	...	(a) Tenure-holders	174	1,702	2,148	26	...	...	...	...	...		
								(b) Raiyats	589	4,011	4,846	14	...	...	...	...	...		
								(c) Under-raiyats	6	20	23	15	...	...	...	...	...		
Tippera	...	...	...	...	...	...	...	Raiyats	32	...	47	...	...	...	...	...	47		
Dinajpur	...	...	...	...	...	...	...	(a) Tenure-holders	...	...	...	...	...	...	...	...	...		
								(b) Raiyats	177	589	785	17·24	...	...	...	116	...		
								(c) Under-raiyats	...	...	...	...	...	...	...	...	...		
Jalpaiguri	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...		

APPENDIX VI.

Result of Appeals during the year ending the 30th September 1913.

NAME OF ESTATE OR TRACT UNDER SETTLEMENT.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	RESULTS OF APPEALS (COLUMN 5). Decisions— Upheld.	Modified.	Revised.	Cases returned for retrial.
1	2	3	4	5	6	7	8	9	10
Birbhum	Section 105		94	41	53	24	2	5	10
	Ditto 106		5	5	4	2	...	3	...
Midnapore (petty estates) ...	Section 105		61	12	49	12	...	..	...
	Ditto 106		8	1	7	...	1	...	...
Ditto (district operations)	Boundary disputes ...		61	59	2	40	9	1	9
	Fine proceedings... ...		22	22	...	15	1	6	...
Hooghly (petty estates) ...	Section 105 ...	111	55	75	91	62	9	2	2
	Ditto 104 ...	9	2	5	6	5	...	...	...
	Ditto 106 ...	15	...	15	...	...	...	15	...
24-Parganas (Gokulpur, tauzi No. 2908).	Section 105 ...	1	1	1	1	...	...	1	1
Nadia	Section 105 ...	22	2	...	24	...	...	...	22
Murshidabad (temporarily-settled estates).	Section 104 G (1)	...	1	1	...	1	...	...	...
Dacca	Fine cases ...	...	6	2	4	...	1	1	...
	Boundary dispute cases.	2	2	2	2	2	...	...	...
Mymensingh	Section 105 ...	1	44	2	43	1	1	...	...
	Ditto 106 ...	...	3	...	3	...	...	...	...
Faridpur	Section 105 ...	...	11	3	8	2	...	...	1
	Ditto 106 ...	...	1	...	1	...	...	...	...
Noakhali (petty estates) ...	Section 105 (for enhancement of rent).	201	...	201	...	165	11	25	...
Dinajpur (petty estates) ...	.....	...	32	6	26	5	...	1	...
Darjeeling	Khasmpuri disputes ...		5	5	...	5	...	..	...

APPENDIX VII.

Nature and number of Holdings recorded in each Settlement during the year ending the 30th September 1913.

District.	Name of each tract under settlement.	Number of khatians recorded in the name of—												
		Proprietor—		Tenure-holder's cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.
		As private lands.	Not as private lands.						Service tenures.	Others.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Burdwan	Private estates	...	...	471	202	2,609	294	894	73	507	104	1	5,155	397
Midnapore	District operations ...	8	272	6,022	7,968	38,970	2,075	2,136	725	962	7,905	549	1,37,683	28,344
24-Parganas ...	Private estates	...	...	192	118	1,851	26	1,974	72	99	44	5	4,331	2,064
Nadia	Government and temporarily-settled estates.	...	11	...	...	116	3	138	...	...	...	...	249	...
Murshidabad ...	Temporarily-settled estates	...	...	1	...	2	41	2	...	...	...	2	48	
Jessore	Government and temporarily-settled estates.	...	...	...	...	48	135	94	...	...	3	...	280	...
	Private estates	...	4	6	...	644	23	1	...	135	...	...	813	215
Khulna	Private estates	8	5	266	128	6,787	15	23	7	46	14	7	7,323	2,938
Dacca	.....	...	...	...	...	Information not collected					...	...	...	...
Mymensingh ...	.....													
Bakarganj	Government and temporarily-settled estates.	...	25	102	...	2,515	21	1,024	...	13	...	29	3,731	930
Noakhali	Government and temporarily-settled estates.	...	3	273	12	2,447	47	1,279	3	1	3	12	4,080	286
	Zamindari estates ...	...	10	204	105	822	...	...	9	9	6	1	1,166	69
Tippera	Zamindari estates ...	5	...	2	...	214	...	...	...	...	1	2	224	...
Darjeeling	Government estates ...	...	...	...	...	...	107	48	...	2	...	2	159	...

APPENDIX VIII.

Progress made in recovery of costs during the year ending the 30th September 1913.

Division.	District.	Estate or tract under settlement.	Demand (outstanding *plus* current).			Collections.							Balance.		
						Landlord's share.			Occupier's share.						
			Landlord's share.	Occupier's share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.	Grand Total collected.	Landlord's share.	Occupier's share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Burdwan	Birbhum	Rampur Hát and Bhadrapur	5,809	1,452	7,261	5,493	358	5,761	1,187	201	1,388	7,149	48	64	112
	Hooghly	Petty zamindari estates	23,626	34,072	57,728	(b)17,815	...	17,815	21,936	...	21,936	(b)39,651	5,841	12,236	18,077
Presidency	Nadia	Ditto	1,214	...	1,214	...	...	1,214	...	...	...	1,214	...	...	...
	24-Parganas	Ditto	21,936	...	21,936	19,069	...	19,069	...	...	...	19,069	2,867	...	2,867
Dacca	Faridpur	District settlement	...	...	5,55,120	4,59,462	16,073	4,75,525	Included in col. 7.	Included in col. 8.	(included in col. 9.	4,75,525	...	...	(c) 56,636
	Mymensingh	Mymensingh	...(a)	1,93,295	1,93,295	75,213	...	75,213	15,351	1,035	1,54,888	2,25,099	...	43,409	...
Chittagong ...	Noakhali	Obakin Nis Sandip	...	288	288	...	...	...	...	288	288	288	...	...	...

(a) Not collected as no estate completely finished.
(b) Including Rs. 10,815 in deposit.
(c) Rupees 2,797 remitted.

APPENDIX IX.

Expenditure for work done (including all book-debit charges) during the year ending the 30th September 1913.

District Operations.

Branch of work.	Midnapore.						Dacca.						Mymensingh.					
	In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report			Up to the end of the year under report.		
	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse survey (done by Settlement Officer).	...	...	...	...	...	...	...	54	...	...	3,102	...	...	...	...	...	...	...
Cadastral survey	4,089	1,18,037	110	2,025	2,06,437	107	992	73,172	82	2,422	2,19,500	91	798	66,853	84	4,480	4,53,363	101
Khanapuri							846	30,440	36	2,371	1,84,391	82	793	22,916	29	4,480	1,64,314	37
Preliminary office work ...	1,059	34,856	33	2,025	54,979	27	826	9,175	11	2,351	36,169	15	703	10,084	13	4,480	74,456	17
Bujharat	956	66,259	69	956	66,259	69	826	56,167	68	2,301	2,09,568	91	819	57,496	70	4,469	3,29,073	74
Attestation							676 (excluding Dacca town).	86,329	127	1,491	1,72,088	115	1,074	73,742	68	3,633	2,13,150	59
Objections	956	6,530	7	956	6,530	7	813	13,610	17	1,445	22,661	16	1,084	9,977	9	3,633	60,975	17
Final office work—																		
Jamch	53	2,178	41	53	2,178	41	805	14,786	18	1,440	19,436	13	1,381	7,984	6	2,693	29,324	11
Statistics	...	...	...	...	...	...	891	11,784	13	1,491	19,672	6	543	3,352	6	2,087	15,345	6
Preparation of 16" maps	...	1,064	...	...	1,064	...	371	2,065	5	525	3,072	6	1,034	5,396	5	2,118	17,711	8
Topo. maps	...	...	...	...	...	...	...	...	...	...	...	...	...	131	...	...	131	...
Final records	...	...	...	...	...	...	...	...	...	...	...	...	854	24,905	29	1,363	45,415	33
Computation and recovery	...	...	...	...	...	...	...	...	...	...	...	...	640	6,979	11	971	8,951	...
Case work	...	...	...	...	...	...	...	90,643	13	...	...	6	223	4,695	21	311	6,347	9
Supervision	2,025	59,704	29	2,981	96,128	32	...	62,882	...	...	2,19,836	...	...	1,02,353	...	...	4,65,218	20
Supp los, services and contingencies.	...	46,564	...	...	1,09,413	...	...	...	...	...	1,68,725	...	...	32,003	...	...	2,76,502	...
Jamabandi	...	...	...	...	...	...	...	...	...	...	...	...	...	1,030	...	...	2,350	...
Diara	...	...	...	...	...	...	...	6,372	...	...	7,122	...	...	...	...	...	...	...
Partition	...	...	...	...	...	...	...	2,115	...	...	2,149	...	...	136	...	...	136	...
Cess revaluation ...	...	877	...	...	877	...	...	10,896	...	...	10,896	...	...	...	...	...	...	...
Total cost ...	...	3,35,049	...	...	5,54,153	...	...	4,70,424	...	...	12,38,407	...	...	4,49,132	...	...	21,62,655	...

Expenditure for work done (including all book-debit charges) during the year ending the 30th September 1913.

District Operations.

Branch of work.	Paridpur						Rajshahi.						Jalpaiguri.					
	In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.		
	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost rate.
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse survey (done by Settlement Officer).	...	43	...	1,064	28,216	26	...	...	...	...	...	...	...	...	...	...	...	...
Cadastral survey	...	...	...	2,696	1,31,068	122	842	37,416	104	842	37,416	104	...	...	...	2,037	2,30,564	113
Khanapuri	...	...	...	2,696	1,31,068	49	842	34,386	40	842	34,386	40	...	...	...	2,037	1,08,433	53
Preliminary office work ...	...	...	...	2,696	25,877	10	842	11,771	14	842	11,771	14	...	...	...	2,037	69,207	34
Bujharat	...	12	...	2,696	3,63,188	135	716	62,925	88	716	62,928	88	...	...	...	2,037	1,67,601	82
Attestation	...	188	...	2,696	1,68,479	62	...	...	...	...	...	...	6	4,011	668	2,118	1,03,937	48
Objections	6	350	57	2,696	1,05,590	39	...	...	...	..	...	...	302	5,026	16	2,118	26,281	12
Final office work—																		
Jamch	353	8,119	23	2,696	1,49,668	52	...	...	...	...	...	...	461	19,038	41	1,975	1,00,986	51
Statistics	1,198	9,799	8	2,696	33,480	12	...	...	...	...	...	...	606	3,475	5	1,204	18,799	13
Preparation of "S" maps	1,125	5,780	5	2,466	30,156	12	...	...	...	...	...	...	267	4,672	16	1,609	30,017	21
Topo. maps	856	1,710	2	1,772	2,728	5	250	1,516	6	250	1,516	6	...	...	...	...	...	...
Final records	1,375	1,03,444	81	1,925	2,06,331	107	...	...	...	...	...	...	357	19,156	25	357	19,156	25
Computation and recovery	569	14,230	25	896	20,211	22	...	...	...	...	...	...	...	20	...	100	380	4
Case work	...	5,740	...	...	5,845	...	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	...	38,361	...	...	3,81,971	...	...	43,214	...	...	64,476	...	...	18,221	...	...	2,43,844	...
Supplies, services and contingencies.	...	44,674	...	...	5,25,942	...	...	15,282	...	...	27,547	...	...	10,464	...	...	1,57,406	...
Jamabandi	...	6,976	...	..	39,773	...	...	...	...	...	...	...	...	16,446	...	...	1,17,648	...
Diara	.	2,557	...	...	20,507	...	...	...	...	...	...	...	...	...	...	...	...	...
Partition	...	11,443	...	..	14,661	...	...	...	...	...	...	...	...	...	...	...	...	...
Cess revaluation	...	11,687	...	...	3,009	...	...	...	...	...	...	...	...	8,312	...	...	11,323	...
Total cost ...	...	2,64,615	...	...	₹ 26,34,555	...	...	261,613	...	...	2,96,040	...	...	1,05,150	...	...	14,06,340	...

APPENDIX X.

Result of Inspection of Survey Marks during the year ending 30th September 1913.

Division and District.	Total number of estates surveyed under Bengal Survey Act or Survey Act.	Total number of estates in which permanent boundary marks are known.	Number of marks mentioned in column 4.	Number of marks inspected this year under report.	Result of inspection of marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
BURDWAN DIVISION.				**GOVERNMENT ESTATES AND TEMPORARILY SETTLED ESTATES.**					Rs. A.	
Burdwan	5	16	371	201	235	18	28	... ...	.....	
Birbhum	3	3	14	14	14	...	...	.....	.....	
Bankura	9	9	48	15	15	...	...	.....	.....	
Midnapore	68	68	3,473	2,283	2,221	118	444	.....	.....	
Hooghly	57	54	612	612	531	1	80	40	.....	
Howrah	2	2	10	10	4	1	0	.....	.....	
PRESIDENCY DIVISION.										
24-Parganas	30	29	2,315	1,783	1,583	140	60	8	2 13	
Nadia	47	32	1,058	719	714	1	4	.....	.....	
Murshidabad	98	77	442	283	247	1	10	.....	.....	
Jessore	1	1	34	34	32	2	...	.....	.....	
Khulna	41	28	656	415	325	34	56	.....	.....	
DACCA DIVISION.										
Mymensingh	38	2	509	509	383	101	25	.....	.....	
Bakarganj	174	111	345	334	254	73	7	.....	.....	
CHITTAGONG DIVISION.										
Chittagong	5	5	1,480	980	893	11	76	9	.....	
Noakhali	11	...	...	109	1,46	8	...	.....	.....	
RAJSHAHI DIVISION.										
Jalpaiguri	5	5	2,541	25	21	...	4	.....	.....	
Bogra	2	2	478	401	400	...	1	.....	.....	
Malda	16	16	196	196	195	...	1	.....	.....	
Darjeeling	2	2	197	197	197	...	...	.....	.....	
Dinajpur	1	1	699	210	210	...	...	.....	.....	
Total ...	615	462	15,021	9,821	8,511	504	806	57	2 13	
BURDWAN DIVISION.					**WARDS' ESTATES.**					
Hooghly	2	3	49	40	40	...	...	.....	.....	
Midnapore	89	89	1,723	1,723	1,357	6	365	.....	.....	
DACCA DIVISION.										
Bakarganj	3	3	1,096	1,089	1,063	20	6	4	Rupees 2-8 met-cant of the funds of the estate.	
CHITTAGONG DIVISION.										
Tippera	143	Not reported.	561	200	209	12	76	.....	.....	
RAJSHAHI DIVISION.										
Malda	3	3	103	103	97	1	5	.....	.....	
Total ...	237	78	3,528	3,260	2,789	40	452	4	2 8	
BURDWAN DIVISION.					**ZAMINDARI ESTATES.**					
Burdwan	70	49	230	230	226	...	2	.....	.....	
Birbhum	4	4	248	248	291	33	24	.....	.....	
Bankura	81	61	290	290	242	13	44	.....	.....	
Midnapore	3	3	360	360	223	...	134	.....	.....	
Hooghly	43	15	315	115	112	...	3	.....	.....	
PRESIDENCY DIVISION.										
24-Parganas	39	33	337	8	6	...	2	.....	.....	
Nadia	2	2	37	37	37	...	...	.....	.....	
Murshidabad	17	12	1,767	1,907	1,059	...	148	.....	Rupees 183-2-7 met from the fund for the maintenance of boundary marks. Rupees 15 realised from neighbouring tenants.	
Jessore	...	19	482	174	171	2	1	.....	.....	
DACCA DIVISION.										
Bakarganj	3,025	3,025	4,507	475	474	1	...	.....	.....	
RAJSHAHI DIVISION.										
Malda	4	4	494	494	491	2	91	.....	.....	
Total ...	3,341	3,224	8,903	3,747	3,346	51	450	.....	178 2 7	
GRAND TOTAL ...	4,061	3,765	28,052	16,828	14,646	604	1,708	61	183 7 7	

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REVENUE DEPARTMENT.

LAND REVENUE.

CALCUTTA, THE 30TH MARCH, 1914.

RESOLUTION—No. 3787.

READ—

The Survey and Settlement Reports for the year ending the 30th September 1913.

THE Survey and Settlement Reports, which were due to Government on the 15th January, were not received till nearly two months later The Governor in Council trusts that efforts will be made to submit the reports more punctually in future. The Directors should endeavour to send their reports to the Press at the beginning of the cold weather, so that they may be able to devote the field season to touring and inspection.

2. Mr. J. C. Jack, I.C.S., was in charge of the Settlement Department until the 11th April 1913, when he was succeeded by Mr. M. C. McAlpin, I.C.S., by whom the present report has been submitted. Under a temporary arrangement made on the reconstitution of the Provinces in April 1912, Lieutenant-Colonel R. T. Crichton, C.I.E., who was appointed Director of Surveys, Bihar and Orissa, continued to supervise survey work in the Burdwan and Presidency Divisions (including Calcutta), and in the district of Darjeeling, while Captain (now Major) F. C. Hirst remained, as before, in charge of the work in Eastern Bengal and in Assam. This arrangement ceased on the 21st March 1913, when, owing to Lieutenant-Colonel Crichton's departure on long leave, the operations of which he was in charge in this Presidency were placed under the control of Major Hirst. The work done for this Presidency in the old Bengal Drawing Office was, at the same time, transferred to the Shillong Drawing Office, which will serve both Bengal and Assam until suitable accommodation can be found by this Government in Calcutta for a separate Drawing Office of its own. Major Hirst's headquarters were transferred to Calcutta in April 1913, but he continues to be Director of Surveys in Assam as well as in Bengal. A joint staff for supervision and control has been sanctioned temporarily for a period of two years, when it will be considered whether this arrangement should continue, or whether it would be more convenient for the two Provinces to have entirely separate Departments, each under a whole-time officer.

3. The reunion of the survey operations of Eastern and Western Bengal under one controlling officer led to a reconsideration of the internal organisation of the Department. The four traverse sections, corresponding to the four major settlement parties—three in Eastern Bengal and one in Midnapore—which had previously been under the direct control of the Director of Surveys, were on the 1st June 1913 amalgamated into a single Traverse Party in charge of a senior officer of the Provincial Service of the Survey of India, with one assistant to help him in the work of supervision and one field assistant in each district, while for miscellaneous work unconnected with district surveys and records of rights a Miscellaneous Traverse and Survey Section, with an officer of the Provincial Service of the Survey of India in charge, has been created experimentally for two years from the 15th May 1913. The survey of Calcutta and the adjoining areas continues to be dealt with by a special party, but it is proposed to merge its work gradually in that of the Miscellaneous Traverse and Survey Section. The new arrangement has resulted in a saving of cost and in the more efficient supervision of all branches of the work.

4. A new departure of considerable importance was the establishment of a Survey school. The primary object of the school is to provide fully qualified traverse surveyors, as it has been found that the training in surveying given in existing engineering schools and other similar institutions

is not suitable for the purposes of the Provincial Survey Department. It was therefore decided that the Department should have a school of its own where land-surveying, as opposed to other forms of surveying, should form the principal subject to be taught. The selection of a site for the school presented considerable difficulties, as it was necessary that the locality, besides being healthy and fairly accessible, should be so situated as to enable the students to practise land-surveying in hilly as well as in flat country. The place selected, after a careful consideration of likely sites in various parts of the Province, is in the Mainamatti hills, about four miles from the town of Comilla in Tippera. The school was opened on the 2nd January last, with Mr. C. S. Kraal, a retired officer of the Survey of India, as its Principal. The full course of instruction extends over two years, but it is open to those who join the school to take the first year's course only. This shorter course is intended to train students for employment as district kanungos or as surveyors in wards' and ordinary private estates, while the two years' course will fully qualify students for employment in the Provincial Survey Department or in any other form of land-surveying. The maximum number of admissions fixed for the first year's course is 50, and for the second year's course 30. The school has started with 35 students, and, if they acquit themselves well, the Director of Surveys expects to be able to provide appointments for all of them either in his own Department or under zamindars or the Court of Wards.

5. According to the revised figures given in the present Settlement Report, the total area of British territory in this Presidency, excluding large rivers, is 73,031 square miles, of which 5,483 square miles are covered by reserved forests, and 2,337 square miles are unsettled waste at the disposal of Government. The settled area comprises 65,211 square miles, in 63,699 of which the Bengal Tenancy Act is in force. A record-of-rights, prepared under Chapter X of that Act, has been finally published in respect of 10,921 square miles. The districts in which operations on a large scale were in progress during the year are Dacca, Mymensingh, Midnapore, Rajshahi, Faridpur and Jalpaiguri. To these may be added an area of 137 square miles in the Rampurhat subdivision of the district of Birbhum, where operations were begun in 1909-10 in advance of the Provincial programme, in consequence of serious discontent amongst the Santhal cultivators.

6. The work of the Survey Department, so far as these operations are concerned, lay in the district of Dacca, the traverse survey of which was practically finished during the year, and in the districts of Mymensingh, Rajshahi and Midnapore. The total area surveyed during the year amounted to 3,562 square miles as against 3,279 square miles in the previous year. The Survey Department also dealt with various miscellaneous items of work, which included, besides the completion of what remained of the survey of the city of Calcutta, the survey, on account of the Calcutta Improvement Trust, of the Maniktala, Tollygunge, South Suburban and Cossipore-Chitpur Municipalities, in all of which fair progress was made in spite of considerable difficulties in demarcation. Every effort is being made to keep down the cost rates of traverse survey, and orders have recently been issued prescribing the submission, by both the Survey and Settlement Departments of an annual account in a form which, it is hoped, will in future enable Government to exercise adequate check over increases of expenditure due to failure to carry out the sanctioned programmes or to other causes. Major Hirst was also, with the permission of Government, called upon to advise the Cooch Behar State with reference to survey and settlement operations in that State, and has commented, in an interesting paragraph, upon the zeal and *esprit de corps* which have been displayed by the officers of the Raj in organising the work.

7. Of the major operations carried on by the Settlement Department, those in the districts of Faridpur and Jalpaiguri and in the Rampurhat subdivision of the district of Birbhum are in their final stages. In the last-named settlement orders have been issued regarding the rates to be applied in the settlement of fair rents under section 112 of the Bengal Tenancy Act, and it is expected that the operations will be completed by the end of June next. In Faridpur and Jalpaiguri the work is not likely to be finished before

the end of the financial year 1914-15. In the former district, the cyclone of 1st November 1912 destroyed a large number of records and caused a serious set-back to the work. There has, moreover, been unusually heavy case-work under sections 105 and 106, for the disposal of which special arrangements have been made. In Jalpaiguri the Settlement Officer had to work with an insufficient and inefficient staff, demoralised by malaria, and the discovery of bad work in part of the records necessitated a considerable portion of the work being redone. The explanation of the delay in this district does not appear, however, to Government to be altogether sufficient. In the other districts dealt with by the Settlement Department the programme was fully carried out with the exception of a few comparatively unimportant items which have been adequately explained by the Director. The total area which was cadastrally surveyed and in respect of which preliminary records were written in the districts of Mymensingh, Dacca, Midnapore and Rajshahi was 3,555 square miles as against a normal programme of 3,200 square miles. Cadastral survey was begun in the district of Rajshahi in the year under report. The attestation of preliminary records was therefore carried on mainly in three districts, and covered an area of 2,717 square miles, while final publication which covered 1,875 square miles was confined to Faridpur, Mymensingh and Jalpaiguri. Recovery of costs was carried on in the Rampurhat subdivision of the district of Birbhum, and in the districts of Mymensingh and Faridpur, and in the two latter districts fell short of the estimates. In Mymensingh the principal landlords were unable to pay before the Durga and Lakhsmi Puja holidays which occurred after the close of the year, and in Faridpur the deficit was due mainly to the lateness of the jute crop which delayed the commencement of recovery for nearly two months. The settlement of land revenue completed to the end of the year in the Western Duars Government Estate in the district of Jalpaiguri resulted in an increase of 25·5 per cent. A considerable area was also resettled in the district of Faridpur, where there was an increase of revenue amounting to 75 per cent., most of which was due to extension of cultivation.

8. The working of the scheme, experimentally sanctioned by the late Government of Eastern Bengal and Assam, for carrying out partitions under Act V (B.C.) of 1897 through the agency of the Settlement Department, was further examined during the year. The scheme was first introduced in the district of Faridpur, and subsequently extended to Dacca and Mymensingh. Its advantages are great, and the large number of cases recently filed indicate that it was appreciated by those chiefly concerned in partition proceedings. The difficulties and delays caused by the cumbrous procedure of the existing law of partition have, however, seriously retarded the completion of the record-of-rights and its final publication, and must inevitably add greatly to the cost of the operations. The Governor in Council has therefore felt constrained to abandon the scheme, and, with the concurrence of the Board of Revenue, has directed that no further partition work should be undertaken by the Settlement Department until the defects in the present law are removed.

9. The question of the heavy cost of settlement operations in Bengal has continued to receive the unremitting attention of the Director of Land Records and of Settlement Officers. The tables of cost rates given in paragraphs 62 to 64 of the Director's report show that substantial economies have been effected in many instances. This satisfactory result is due in some cases to local conditions, but mainly to the fact that the operations now in progress are beginning to reap the benefit of the pioneer work done in Bakarganj and Faridpur. It is particularly satisfactory that the cost of printing the record-of-rights is falling. At the same time, the Governor in Council fully agrees with Mr. McAlpin that economy can be carried too far, and that it would be a fatal error to adopt measures which would diminish the value of the record, merely in order to reduce the cost of printing.

10. The Settlement report, as usual, furnishes some interesting glimpses of the relations between landlord and tenant in different parts of the Province. It is often assumed that the Bengali cultivator is a person who is well able to look after his own interests, and requires no special protection from his landlord, but this report contains many melancholy instances of oppression and wrong-doing hardly surpassed in the most backward parts

of Bihar. One noticeable feature is that the most flagrant instances of illegal enhancements of rent have been found in the estates of large proprietors, some of whom hold high positions in Government service. The explanation is no doubt to be found in the fact that these gentlemen are necessarily absentee proprietors, and the Governor in Council hopes that, now that the enquiries of the Settlement Department have revealed the true condition of their estates, they will take steps to control the action of their local agents, and so fulfil the responsibilities which, as they must be aware, devolved upon them in connection with the permanent settlement of their estates for the proper treatment of their tenants of every degree.

11. Minor settlement operations were in progress in 16 districts, and the report indicates that the placing of these settlements under the control of the Director of Land Records has already had a good effect. Greater attention is being paid to the work than before, and defects in procedure are being brought to light and remedied. There are also satisfactory signs that a growing interest is being taken by District Officers in the maintenance of boundary marks, and that the settlement records are being freely utilised in various branches of administration.

12. Reference was made in the Resolution on the Survey and Settlement Reports for the year 1911-12 to the notable services rendered to Government by Lieutenant-Colonel Crichton, C.I.E., and Mr. J. C. Jack, I.C.S. The thanks of the Governor in Council are due to Major Hirst and Mr. McAlpin for their efficient and vigorous administration of the Departments under their charge. Their subordinates, with few exceptions, maintained the high standard of work which is expected from officers of the Survey and Settlement Departments. and His Excellency in Council desires particularly to acknowledge the good services rendered in their responsible posts by the officers in charge of the major settlements.

ORDER.—Ordered that this Resolution be published in the Gazette, and that a copy of it, with copies of the two reports, be submitted to the Government of India.

By order of the Governor in Council,

J. H. KERR,
Secretary to the Govt. of Bengal.

No. 3909.

COPY, with copies of the two reports, forwarded to the Surveyor-General of India for information.

No. 3910.

COPY, with a copy of the Survey Report, forwarded to the General (Municipal) Department of this Government for information.

No. 3911.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government for information with special reference to paragraph 12 of the Resolution.

Nos. 3912-13.

COPY forwarded to the Director of Land Records, Bengal. / Director of Surveys, Bengal and Assam, for information.

By order of the Governor in Council,

J. N. MITRA,
Under-Secretary to the Govt. of Bengal.

CALCUTTA,
The 30th March 1914.

B. S. Press—9.4.1914—7260C—500—C. A. P.

ANNUAL REPORT

ON THE

SURVEY OPERATIONS IN BENGAL

(OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

1913-1914.

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Major James Rennell, F.R.S.,

'the first great English Geographer'.

James Rennell

Reproduced from a Medallion in the possession of the Asiatic Society of Bengal.

[Maximum limit, 15 pages.

INDEX TO CONTENTS.

PAGE.

CHAPTER I.

General remarks . . . . . 1—2

CHAPTER II.

Rajshahi District Major Traverse work 3
Mymensingh ditto 3
Noakhali ditto 3
Midnapore ditto 3
Mymensingh and Tippera Districts Diara Traverse work 4
Miscellaneous surveys . . . . . 4—6
Calcutta surveys . . . . . 6—7

CHAPTER III.

Drawing Office . . . . . 7—8

CHAPTER IV.

Bengal Land Surveying School . . . . . 8—9

CHAPTER V.

Tours of the Director of Surveys 9
Services of officers 9

APPENDICES . . . . . i—viii

No. 4878.

FROM MAJOR F. C. HIRST, I.A.,

Director of Surveys, Bengal and Assam.

(On special duty.)

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT.

Dated Calcutta, the 23rd December 1914.

SIR,

I HAVE the honour to submit my Report on the Survey Operations of the Local Survey Depar ment during the year ending with 30th September 1914.

2. I was in charge throughout the year under report, and issue the report in Captain Gwyn's absence on field-service.

CHAPTER I.

General Remarks.

3. The outturn for the year, excluding linear and petty surveys, was 3,630 square miles, which is almost exactly the same as last year's outturn.

4. It is under the consideration of the Assam Administration whether or not the Assam Surveys ought to remain under this Department. From the point of view of Bengal, separation is desirable; no monetary advantage is gained by the connection and the joint appointment has become very heavy indeed.

5. The organization of the Department has not changed since my last report was issued, except that the Bengal and Assam Survey Schools have been opened at Mainamatti (near Comilla) and Jhalukbari (Kamrup), respectively.

Among impending changes, however, is the transfer from Shillong to Calcutta of all the Bengal portions of the Drawing Office, except plant for map reproduction. It has not as yet been found possible to obtain funds for the erection in Calcutta of a building in which to house the whole Bengal Drawing Office. Meanwhile the Calcutta offices are situated in three edifices strung out along Park Street at considerable distances from each other; urgent reproduction work can be done extra-departmentally in Calcutta, but the bulk must go to Shillong. The Western Bengal records have been taken over from the Director of Land Records, Bihar and Orissa, and are being housed in 87, Park Street, together with the Eastern Bengal records. In addition, the Bihar and Orissa Standard Mapping Section is under transfer to my Department (*vide* paragraph 7).

6. As regards Bengal, the year closes, therefore, with the following organization :—

Director of Surveys Office (Bengal and Assam) at Calcutta.
Drawing Office (Reproduction only) (Bengal and Assam) at Shillong.
Drawing Office (Records, Copying, and Jurisdiction Mapping Sections) at Calcutta.
Imperial Standard Mapping Section at Calcutta.
Bengal Traverse Party at Calcutta.
Bengal Miscellaneous Party at Calcutta.
Calcutta Survey Office at Calcutta.
Bengal Land Surveying School at Comilla.

7. The Surveyor-General has agreed recently to the Bihar and Orissa Standard Mapping Section, which is about to finish its Bihar and Orissa programme, being transferred for Bengal work. Thus it will shortly

commence work on the one-inch "Preliminary" Standard Maps of the Survey of India, compiled from Bengal Cadastral detail. The Surveyor-General and Superintendent of Map Publication will inspect the professional methods employed, and the work done by the Section will result in a monetary saving being effected in the preparation of Jurisdiction maps.

8. The system of apportioning costs between Imperial and Provincial Revenues is still under consideration, and it is expected that a simplified set of rules will be issued shortly.

9. The "square-traversing" experiment referred to in last year's report was repeated in that portion of last field season's major traverse area which lies in the Madhupur jungle portion of the Mymensingh district, and was successful. For such country it is impossible to use the ordinary *mauzawari* system of traverse. I have recently received sanction to a further trial of the "square" system in an area of about 200 square miles in the south-west corner of Bankura district which was never included in the Revenue Survey. This will be a better test of the "square" system than were the trials made in the Dacca (Megna) diara and in the Madhupur jungle, although the country even in Bankura physically will not resemble very closely the ordinary uplands we usually deal with.

10. The surveys in and near Calcutta were last year reported upon. The Howrah town survey began in January 1914, modified methods being employed from the start.

11. The *Crinoline* traversing, which I intended to execute last field season in order to provide more points to control major traverse, has been postponed until the coming cold weather. Lines will be run in Jessore district and probably in Bankura district.

12. The miscellaneous work of the Department continues to increase, and the available field staff has all the work it can cope with. Fresh surveyors are continually being trained.

13. During the year I published a text-book on "Surveying as applied to Criminal Investigation," and a pamphlet of "Instructions for Traverse Surveys in Bengal." A history of the Calcutta surveys, and a memoir (with a new atlas) upon Rennel's work, are in the press and about to issue.

14. Relations with the Settlement Department, as usual, have been harmonious.

15. As regards the Settlement Officers' Technical Advisers, owing to there being a shortage of officers in this Department who can be lent, it has been decided, with the Surveyor-General's permission, that a Settlement Officer may, if necessary, employ as Technical Adviser a selected Sub-Deputy Collector, who must first be passed by me as competent. Accordingly in January last I examined in surveying two men sent me by the Director of Land Records, of whom one was found to be quite fit to be a Technical Adviser.

16. An analysis of cost-rates for traverse and reproduction will be found in Appendix IV.

17. As the year 1914 is the one hundred and fiftieth anniversary of Major Rennel's appointment as Surveyor-General of Bengal, his portrait (printed by the Surveyor-General of India) has been included as a frontispiece to this report.

CHAPTER II.

Part I.—Surveys in Temporarily-settled and Government Estates under Settlement of rent and land revenue.

Nil.

Part II.—Surveys in Private Estates.

18. The system of organization of the Bengal Traverse Party, which was introduced for the field season of 1913-14, involved a central office in Calcutta for all Major Traverse operations. In the field the necessary supervision is effected by field assistants. The plan works well, and results in lower cost-rates.

Rajshahi District (Uplands) Traverse Survey.

19. The work was a continuation of the district operations reported upon last year. The programme was completed, except for a few villages which will be revised next season. Rampur Boalia town was traversed for a large scale survey.

It will be noticed that this year, even more than last, there are very high average numbers to the square mile of villages and traverse stations. But for this, the cost-rates would be much lower. The Director of Land Records is taking steps to effect the necessary amalgamation of small villages. Except in thana Puthia, parts of which are very lowlying and full of *bhils*, the ground was not found to be difficult.

The traverse of the uplands of this district is keeping pace with the original programme. About 200 square miles still remain, which will be completed next field season.

Mymensingh District—(Uplands).

Traverse Survey.

20. Work began where it left off last year. Part of the area was too wet to work in until January. In thana Bajitpur we met with some very large villages, in which the inhabitants were entirely ignorant of their village boundaries. In the Madhupur jungle area we continued to work on the "square" system of traverse, as village boundaries are not known.

Noakhali District—(Uplands).

Traverse Survey.

21. The district was commenced this year, and the season's programme completed. No great difficulties were encountered, except that across the wide river channels, it was found impossible for traversers to triangulate. I hope that this very necessary task will be undertaken by the Surveyor-General next cold weather. All cultivated islands lying in the programme area were dealt with. There is a long island forming off the north-eastern shore of Sandip, but as last cold weather it was not cultivated and was said to be covered at high tides. it was not traversed. Noakhali town was traversed for a large-scale survey by the Settlement Officer.

Midnapore District—(Uplands).

Traverse Survey.

22. The operations were a continuation of last year's work. The programme was completed with difficulty, on account of jungle in some areas and water in others. Seven municipalities were traversed on large scales for detail survey by the Settlement Officer. There were very many small villages.

23. A great part of the field staff was composed of *khalasis* from Gonda, given to absconding at the approach of fever, which was excessively prevalent.

24. There remain for traverse a number of isolated villages and the Sujamutha Estate, a total area of at least 300 square miles. It was hoped to finish the District Traverse this year, but the following arrears remain :—

(*i*) Re-traverse of flooded areas in which the marks have almost certainly disappeared.

(*ii*) Areas omitted from traverse by the staff transferred to me by the Director of Land Records, Bihar and Orissa.

(*iii*) Areas inside certain *khas mahal* villages, and outside the Sujamutha Estate, which omitted areas had not been cadastrally surveyed in the earlier operations in this district.

(*iv*) Certain diara areas touching on outside districts. These will be taken up when the Settlement Officer can deal with them.

None of these items could have been foreseen, except perhaps (iii).

Mymensingh and Tippera Districts—(Diara).

Traverse Survey.

25. This *diara* covers all that portion of the bed of the Megna touching the Mymensingh district, and a line of villages on the Tippera side of the river opposite to the Dacca district. The whole area was plotted in time for the Settlement Officer to complete his cadastral work the same season.

Part III.—Miscellaneous Surveys.

Comparative Mapping, Dacca-Tippera Diara.

26. This work is being done for the Settlement Officer, Dacca, to facilitate his operations under Act IX of 1847.

Owing to there being no cadastral detail at present available for some of the Tippera areas, the work has been difficult. The area covers about 105 square miles.

Comparative Mapping, Mymensingh-Pabna Diara.

27. This mapping was completed this year [*see* 1912-13 Report, page 9 paragraph 68 (ii)].

Comparative Mapping, District Mymensingh, Duaria-Panchgachhia.

28. This work was done for the Settlement Officer of Mymensingh, who could not wait for the area to be dealt with in the course of the mapping of the Mymensingh-Pabna *diara* in which it lies. The urgency was due to a dispute case. The area compared covered about 4 square miles.

Detail Survey and Demarcation of lease boundaries in Lot 122, 24-Parganas (Sunderbans).

29. This operation was carried out at the request of the Collector. The lease map and the definition of boundaries being found discordant, the entire "lot" had to be surveyed in detail.

Revision of the 50-foot maps of the Calcutta Added Area.

30. This revision was commenced in May 1914 by the Bengal Miscellaneous Party. It comprises revising the 50-foot maps prepared by Mr. R. B. Smart (1903-1908) which have become out of date. The cost was met by the Improvement Trust.

Chittagong Municipal Survey.

31. The records and maps were finally completed and made over to the Municipality together with a 16-inch wall map.

District Instrument Checking Standards.

32. These were erected at Midnapore, Comilla, Rampur Boalia and Noakhali, the necessary observations being made, to mark the true meridians, true right-angles, and the correct length for 66 feet chains. It is proposed to erect such standards at all district headquarters in the Province.

Jalpaiguri Tea Garden Survey.

33. One estate was resurveyed, as forecasted in my last Annual Report. The inaccuracies were very petty, except on the boundaries. There they

occurred owing to the lines not being properly pointed out by the lease-holders, and also to my having purposely kept the original lease map out of the Amin's hands. Two new gardens are for survey next field season.

Survey of an accretion in the bed of the Tista river, District Rangpur.

34. This item was undertaken at the request of the Collector. The accretion fell in *mauzas* Pitiphata and Sheiksundar. Forty linear miles of traverse were run and 10 square miles mapped in detail. A comparative map covering 35 square miles was made.

Fair Mapping for the Babupur-Wazirpur Diara Case.

(*Vide* paragraph 68 of 1913 Report.)

35. This work was completed and handed over to the contending parties.

Murshidabad-Rajshahi (Midnapore Zamindari) Case.

[*Vide* paragraph 68 (IV) of 1913 Report.]

36. Some further fair mapping and computations were done to check the Civil Court Commissioner's field-work.

Darjeeling-Purnea Boundary.

Comparative Mapping and Demarcation.

37. Originally I was requested by the Deputy Commissioner of Darjeeling to relay only a few pillars, but eventually it was found expedient to demarcate the whole line from Fansedewa to the Mechi river. A comparative map was drawn, and the boundary laid down therefrom according to the cadastral survey of the Purnea district of 1901-03 which followed the boundaries shown in Johnson's Revenue Survey of 1863-64. Johnson's pillars, 237 in all, have been relaid temporarily and are to be replaced by the Public Works Department with masonry pillars.

Jalpaiguri-Bhutan Boundary.

38. The Commissioner of the Rajshahi Division asked me to fix the position of one pillar, which had been washed away by the Gabur-Basra river, by means of reference pillars. The positions for eight reference pillars were fixed and pointed out to an officer of the Public Works Department, who has gone to leave; in consequence of this the Executive Engineer has asked us to point them out again to enable him to build the pillars.

Rampur-Boalia Comparative Mapping.

39. This work was carried out to assist the Civil Court whose *amin* had failed to carry out satisfactorily orders to relay a map made years ago, in accordance with a High Court decree. The work was completed.

Rajmahal (Sonthal Parganas) Diara Survey (Relaying).

40. This was a request made by the Civil Court to relay certain village boundaries from the Diara Survey maps. The work was completed. It entailed about 30 square miles of traverse, some intricate office work, and a certain amount of relaying in the field by a European Officer. The records were handed over to the Subdivisional Officer.

Howrah Town Survey.

41. This consists of an accurate 50-foot detail survey, based on secondary triangulation brought across the Hooghly river, from two Trigonometrical stations, and upon theodolite traverse. The exterior and some of the

interior controlling traverse is being done with crinoline chains. The ordinary block traverse is correspondingly delicate. The origin of survey is the inter-section of Longitude East 88° 20′-00-0″, with Latitude North 22° 35′ 00″.

The work is being paid for by the Municipality and by the Calcutta Improvement Trust, the latter paying one-third of the cost.

The total area is about 8·75 square miles, of which the really congested portion is about 2·5 square miles.

The triangulation and crinoline traversing presented considerable difficulties which were ably dealt with by Mr. Delaney in person. The main and sub-circuit lines contain 870 marks in 32·6 linear miles : 100 azimuths were observed. The total number of marks put down will be about 1,700, and the traversing will be controlled by sixteen triangulation stations in Howrah.

Detail survey has not yet commenced.

Damodar River (Howrah District) Accretion Case.

42. At the request of the Collector, we were to produce a comparative map, showing, with regard to eight villages, the alluvion and *diluvion* as comparative with the Revenue Survey. The work developed later into the making of a map for a stretch of 5 miles along the river, which necessitated 35 square miles of traverse and 6 square miles of detail survey. The work was begun in the recess season this year, and only the offsetting to the water was unfinished when the river rose. This job will be completed next field season, but the case has been complicated by the inefficiency of the District Officer's Survey staff.

Supply of copies of maps and Traverse data by the Bengal Miscellaneous Section.

43. Two-hundred and thirty-five applications were received. All this work will in future be done by the Copying Section of the Drawing Office, which is coming from Shillong immediately.

Calcutta Surveys (other than Howrah and the Added Area referred to above).

44. These operations were controlled executively by Mr. R. B. Smart up to 19th March 1914, and for the remainder of the year by Mr. S. O. Madras. The work consisted of—

(*a*) Calcutta Improvement Trust Survey in the Maniktala, Tollygunge, South Suburban, and Cossipore-Chitpur Municipalities.

(*b*) Calcutta Town Revenue Block maps.

(*c*) Comparative Mapping of the High Court Jurisdiction Boundaries of Calcutta.

(*d*) Compiling notes for my history of the Calcutta Surveys from 1903 onwards.

(*e*) Revenue work in the Maniktala, Tollygunge and Cossipore-Chitpur Municipalities.

Taking the above seriatim.

45. The **Calcutta Improvement Trust** Surveys in Maniktala remaining over consisted only of fair mapping, which was completed, and of reproduction. Copies of the maps were distributed to various officers and some sold to the Municipal and Corporation authorities. A 16-inch wall map was drawn and reproduced.

46. In the Tollygunge Municipality the demarcation of holding limits was completed. The whole area surveyed had to be renumbered. The fair mapping is still incomplete owing to non-settlement of disputes. I refer to these disputes later on.

47. In the South Suburban Municipality, the whole area was completed in detail survey. Demarcation was also finished. This was very difficult in the agricultural area west of Diamond Harbour Road, as it was hard to

ascertain the actual owners of the lands. As in Tollygunge, the plots had to be renumbered. They total 4,676. The fair mapping was commenced and 123 sheets drawn out of 175. The remaining 52 must wait till disputes are disposed of. There are 111 dispute cases, which have been forwarded to the Deputy Collector for disposal.

48. In the Cossipore-Chitpur Municipality the traverse was finished, and the whole of the detail survey completed during the year. The demarcation began in February 1914 and is still in progress, Revenue as well as Municipal holdings being ascertained. Six amins are now steadily employed.

The fair mapping cannot be started until the demarcation is finished.

Calcutta Town Revenue Block maps.

49. The Northern Division maps were published and distributed. They were notified in the *Calcutta Gazette* of 6th December 1913 (No. 2658L.R.).

Comparative Mapping of the Boundaries of Calcutta.

50. The map was published in 67 sheets and sent to the Secretary to Government (Political Department) in October 1913.

Compilation of Notes on Calcutta Surveys since 1903.

51. The actual history is about to be issued by the Secretariat Press and has been written by me personally, and the views expressed are in no way binding upon Government.

Revenue work in various Municipalities of Calcutta.

52. In Maniktala one dispute case is under consideration. The *khasra khatians* of Grand Division Number 2 (which completes the area) were submitted to the Collector, 24-Parganas, in October 1913 *for attestation*, which has been proceeding, but apparently not very fast. The delay in this affects the preparation of the revenue maps, and there seems to be no chance of their completion within this financial year.

In Tollygunge there are 34 dispute cases unsettled. Owing to an unfortunate sequence of transfers of Deputy Collectors appointed to settle disputes, and to the fact that such officers are expected to carry out such work as an insignificant addition to their ordinary duties, this side of the work has suffered a great deal, and the publication of fair maps for the Improvement Trust has been much delayed.

In Tollygunge also, the Government estates (two portions of the Panchannagram and Sahiban Bagicha) were revised, and the resulting *khasra khatians* of the Panchannagram area were sent to the Collector of the 24-Parganas for attestation. Those of Sahiban Bagicha are still in hand, and will be sent later on to the Collector. After the attestation of these areas, the revenue maps will be put in hand.

In the Cossipore-Chitpur Municipality as mentioned above, both Municipal and Revenue holdings are demarcated. I anticipate about 200 dispute cases altogether in this area. The dispute-case Deputy Collector will take them up after disposing of those in the Tollygunge and the South Suburbs areas. The *khasra khatians* are being prepared *pari pasu* with the demarcation, and will be submitted to the Collector for attestation.

At the present rate of progress in the decision of disputes in other municipal areas, I do not foresee the completion of this work during the period of my official life.

CHAPTER III.

Drawing Office.

Reproduction Section.

53. The total output on pulls was 528,865, of which 64,471 were for Assam. Besides this, in the Bihar and Orissa Drawing Office, there were printed 23,860 pulls for Bengal, making a total of 488,254 pulls for Bengal.

The Bengal Settlement Department accounted for 411,992 pulls as against 476,841 last year. There are various reasons for this decrease, but the most important is that the Settlement Department is still unable to keep up to its programme.

Map Issue and Copying Section.

54. Three hundred and fourteen applications were received for copies of maps, etc.; of these, 74 could not be dealt with owing to costs not being deposited or to the vague nature of the applications; 546 copies of maps, etc., were supplied. The financial position of the section is satisfactory, but on its removal to Calcutta it will have to be re-arranged with a view to decreasing the payments made to draftsmen. At present much of the Bengal copying work is done in Calcutta by the Bengal Miscellaneous Section.

Jurisdiction Mapping Section.

55. This section does not deal with the supply to Settlement Officers of traverse plots on which they compile jurisdiction maps from modern cadastral details. These plots are made by the Bengal Traverse Party.

The old jurisdiction maps of Chittagong, Dinajpur and Malda (a total of 38 thanas), 5 thanas of Murshidabad, 6 of Rangpur, 1 of Rajshahi and 1 of Birbhum—total 51 thanas have been revised and published. Districts Bogra and Pabna are in hand, and the remaining thanas of the districts mentioned above.

As regards jurisdiction mapping from modern surveys, Faridpur district is being dealt with by the Settlement Officer. The 1" reductions of thanas Faridpur and Goalundo are about to be printed. Those of Baliakandi and Pangsa have been issued. The remaining thanas are in hand. 4" maps of Baliakandi, Panga, Nagar Kanda and Bhusna have been printed.

Record Section.

56. During the year there were received 6,674 original cadastral maps which make the total racked 18,275.

The Western Bengal maps which were lodged in the Bihar and Orissa Drawing Office are about to be taken over by me. Therefore from next year complete figures will be available.

General Remarks.

57. The total recoveries by the Shillong Drawing Office in cash and by book-debit for Bengal work amount to Rs. 3,861. This excludes Rs. 5,459 recovered for Bengal by the Bihar and Orissa Drawing Office.

CHAPTER IV.

Bengal Land Surveying School.

58. The school was opened at Mainamatti, Tippera, some six miles from Comilla, on 2nd January 1914. As the buildings were not ready, classes were begun under canvas. Forty-one pupils were admitted, 29 being Hindus and the rest Muhammadans.

The school was formally opened by the Hon'ble Mr. N. D. Beatson Bell, C.I.E., I.C.S., on 28th March 1914. The buildings which were constructed departmentally were finally completed about a month later. On 24th August 1914, the main school and the Principal's house were burnt to the ground, and damage was done to the extent of about Rs. 13,000. The cause was probably incendiarism by the local inhabitants.

Until the middle of July 1914 the health of the students was excellent, but after that a good deal of fever prevailed. The boys' behaviour throughout the year was exemplary. Much attention was paid to athletics with the result that the students improved greatly in physique. The school, however, needs some gymnastic appliances, which will be provided as soon as funds are available.

The opening of the school was signalized by the following spontaneous gifts :—

(*i*) Mr. George Hennessy—A scholarship of Rs. 10 *per mensem* for two years ;

(*ii*) Rai Ananga Mohun Guha Bahadur of Comilla—A gold medal for the best pupil of the year ;

(*iii*) The Hon'ble Nawab Sayad Hosein Hyder Chowdhury, Khan Bahadur—A silver cup for the best athlete of the year.

The final examination will commence on 1st November 1914, and afterwards the students' futures will be decided. So far as I can see, about 80 per cent. of them can be provided with appointments direct from the school, if they are prepared to take them.

The courses open to students are two—the first-year and second-year courses. The latter has not as yet been begun, but a start may be made in November 1915. From among the students who are now completing their first year I am taking about 25 as traversers for the coming field season's Major Traverse.

CHAPTER V.

Tours and Services of Officers.

59. The two Assistant Directors helped with the touring. I did less than usual.

Captain A. H. Gwyn inspected with me the major settlement surveys of Dacca, Mymensingh, Rajshahi and Midnapore.

As I had become unfit for touring in the rains, the recess inspections of all major settlement surveys were carried out by Captain A. H. Gwyn.

The standards in all were found satisfactory, with the reservation given in my last annual report paragraph III).

Captain Gwyn has given me much help, and is about to take over from me.

60. Bengal has lost a great asset in Mr. Thomas Shaw, who has finally left the Province. I am very fortunate indeed still to be associated with him in Assam.

Mr. S. O. Madras has done excellent work in the Calcutta Surveys, and has given me voluntary help in many ways.

Mr. A. B. Smart has done good work in the Drawing Office during that portion of the year when he was not on leave.

Mr. C. A. O'Donel is proving a great success as Officer in Charge of the Bengal Traverse Party, and is fortunately a young man. Mr. P. F. Delaney has done very well in his charge as Officer in Charge of the Bengal Miscellaneous Survey Section.

Pandit Damodar Rao Dhulokar was appointed as my Personal Assistant during the year and I always know that I can rely upon him for energy and good work. His appointment as Personal Assistant was one which his past services entitled him to be given, and his career may be looked upon as an example to others who may be inclined, by ability and hard work, to raise themselves from ministerial to higher rank.

I have the honour to be,

SIR,

Your most obedient servant,

F. C. HIRST, MAJOR, I.A.,

Director of Surveys, Bengal and Assam.

(*On special duty.*)

Statement showing particulars of each survey operations undertaken by the Bengal Traverse Party during the year ending the 30th September 1914.

DESCRIPTION OF WORK.	Geographical limit of work.	Origin used.	Number of villages.	Linear miles of chaining.	Number of new trunkline stations.	Number of azimuths observed.	Number of azimuths used.	Number of subintersections.	Number of village-circuits.	Number of subcircuits.	Number of main circuits.	MARKS USED (NUMBERS).						Total number of stations at which observations were taken.
												Old stones.	Tri-junction marks.	Galvanized cylinders.	Stones.	Iron pegs.	Pegs.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Rajshahi District Traverse (upland).	Lat. 24° 07' 30" to 24° 43' 00." Long. 88° 21' 40" to 88° 59' 00".	Lat. 24° 30' 00" ... Long. 88° 30' 00".	2,046	3,211	18,542	114	106	706	1,557	26	6	6	2,850	222	...	194	15,554	21,705
Rampur-Boalia Model-pacity in district Rajshahi.	Lat. 24° 20' 00" to 24° 28' 00". Long. 88° 40' 00" to 88° 44' 00".	Lat. 24° 30' 00" ... Long. 88° 30' 00".	.....	16	354	.....	.....	23	8*	...	...	21	10	216	...	...	7	422
Midnapore District Traverse.	Lat. 22° 17' 30" to 22° 57' 30". Long. 87° 07' 30" to 87° 51' 30".	Lat. 22° 30' 00" ... Long. 87° 30' 00".	2,466	4,214	28,584	147	146	1,043	2,486	54	7	.....	4,674	210	...	...	23,600	28,576
Scattered villages viz. Thana Ramnagar, Khajuri, Contai, Mandarmoni, Bhagwanpur, Pataspur, Sutahata and Tamluk Traverse.	Lat. 21° 27' 30" to 22° 30' 00". Long. 87° 26' 00" to 88° 12' 30".	...	44	115	621	15	13	14	...	...	...	10	30	9	...	...	474	706
In district Midnapore—																		
Midnapore Municipality			.....	21	1,567	.....	.....	135	1	...	...	.....	.....	887	...	260	20	2,277
Ramjibanpur ,,	Lat. 22° 24' 00" to 22° 55' 00". Long. 87° 13' 00" to 88° 00".	Lat. 22° 30' 00" ... Long. 87° 30' 00".	.....	29	242	.....	.....	44	1*	...	...	.....	3	63	...	179	474	
Chandrakona ,,			.....	26	224	.....	.....	36	1*	...	...	.....	.....	82	16	...	224	596
Khirpai ,,			.....	23	204	.....	.....	23	1*	...	...	.....	.....	84	5	...	180	536
Kharar ,,			.....	21	203	.....	.....	23	1*	...	...	.....	1	120	...	12	110	304
Ghatal ,,			.....	24	242	.....	.....	29	1*	...	...	.....	.....	102	...	61	108	410
Tamluk ,,			.....	7	135	.....	.....	11	1*	...	...	.....	.....	.....	...	...	102	102
District Mymensingh (upland).	Lat. 24° 01' 00" to 24° 40' 00".	Lat. 24° 30' 00" ...	242	7,009	8,806	63	63	403	242	33	2	23	1,160	121	13	...	7,679	10,368
District Mymensingh-Sangpur (Diara).	Long. 90° 34' 00" to 91° 16' 00".	Long. 90° 30' 00" ...	.....	.....	.....	.....	.....	...	...	...	...	.....	.....	.....	...	...	.....	.....
District Mymensingh-Madhupur Forest block on square system.	Lat. 24° 01' 00" to 24° 40' 00". Long. 90° 01' 30" to 90° 12' 30".	Lat. 24° 00' 00" ... Long. 90° 00' 00" ...	.....	1,191	9,820	23	22	400	282	24	1	.....	60	.....	...	...	3,730	11,414
District Mymensingh-Tippera Diara.	L. at. 23° 35' 00" to 24° 01' 30". Long. 90° 53' 30" to 91° 00' 00".	Lat. 24° 30' 00" ... Long. 90° 30' 00" ...	110	340	1,306	16	15	113	110	...	1	1	280	101	...	...	1 322	2,351
District Noakhali (upland)	Lat. 22° 20' 00" to 23° 05' 00".	Lat. 23° 30' 00" ...	1,088	3,133	17 504	125	126	726	1,046	31	3	42	2,132	324	114	...	14,841	21,192
Chars in Bay of Bengal, District Tippera.	Long. 91° 06' 30" to 91° 58' 00".	Long. 91° 00' 00" ...																
Noakhali Municipality ...	Lat. 22° 48' 30" to 22° 49' 30". Long. 91° 06' 00" to 91° 07' 30".	Lat. 23° 30' 00" ... Long. 91° 00' 00" ...	.....	19	102	.....	.....	22	1*	...	...	16	8	120	...	...	43	241

* These are Works.

Statement showing particulars of each survey operations undertaken by the Bengal Traverse Party during the year ending the 30th September 1914.

DESCRIPTION OF WORK.	AREA OF EACH THANA IN SQUARE MILES.								Total area dealt with in square miles.	Area for cultivated (tenure wanted) in square miles.	Area for forest (not wanted) in square miles.	Number of 16" sheets.	Number of 64" sheets.	Number of G. T. connections.	Average error in feet per mile.	Magnetic declination.	Traverse data applied for settlement officer (check).	Major used to guide surveyor (check only).	Health of establishment.	Work started on—	Work completed on—	REMARKS.
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Rajshahi district (upland) Traverse.	Chargital (2) 104	Rampur-Boalia (6) 103	Godagari (7) 152	Paniha (12) 140	Bhagmara (12) 140	Tanor (14) 177	...	...	618	...	300	...	...	3	6·4	Nil	0° 48′ 00″ E.	Not yet	4″ R. S. maps of 1851.	Fair ...	15-11-1913	15-5-1914	The longitudinal corrective has been applied to this work.
Rampur-Boalia Municipality in district Rajshahi.	.....	.....	.....	.....	...	...	...	...	34	...	...	...	...	...	...	...	.....	...	.....	Do. ...	24-4-1914	23-5-1914	Ditto.
Midnapore District Traverse	Midnapore 116	Keshpur 187	Chandrakona 134	Ghatal 19	Daspur 119	Debra 121	Pansakura 160	Tamluk ...	925	...	382	...	...	4	10·2	Nil	0° 14′ 00″ E.	Not yet	4″ R. S. survey of 1873-75.	Bad ...	23-11-1913	30-4-1914	Longitudinal correction has not been applied to this work.
Scattered villages of thanas Ramnagar, Khejri, Contai, Nandigram, Bhagwanpur, Patanpur, Sutahata and Tamluk Traverse.	.....	.....	.....	.....	...	...	...	...	6	3	...	40	...	...	10·2	Nil	0° 15′ 00″ E.	Do.	Ditto ...	Do. ...	23-11-1913	19-5-1914	Ditto. These villages were omitted from the area traversed last year.
In district Midnapore—Midnapore Municipality	...	.....	.....	.....	...	...	...	...	5	...	...	...	...	...	10·2	...	0° 15′ 00″ E.	Do.	.....	Do. ...	24-4-1914	16-5-1914	Longitudinal correction has not been applied to this work.
Ramjiwanpur "	.....	.....	.....	.....	...	...	...	...	5	...	...	...	...	...	10·2	...	0° 15′ 00″ E.	Do	.....	Do. ...	16-4-1914	7-5-1914	Ditto.
Chandrakona "	.....	.....	.....	.....	...	...	...	...	6	...	...	...	...	...	10·2	...	0° 15′ 00″ E.	Do.	.....	Do. ...	29-5-1914	2-6-1914	Ditto.
Khirpai "	.....	.....	.....	.....	...	...	...	...	7	...	...	...	...	...	10·2	...	0° 15′ 00″ E.	Do.	.....	Do. ...	10-5-1914	20-5-1914	Ditto.
Khorar "	.....	.....	.....	.....	...	...	...	...	2	...	...	...	...	...	10·2	...	0° 15′ 00″ E.	Do.	.....	Do. ...	8-5-1914	27-5-1914	Ditto.
Ghatal "	.....	.....	.....	.....	...	...	...	...	3	...	...	...	...	...	10·2	...	0° 15′ 00″ E.	Do.	.....	Do. ...	1-5-1914	19-5-1914	Ditto.
Tamluk "	.....	.....	.....	.....	...	...	...	...	1	1	...	...	...	19	10·2	...	0° 15′ 00″ E.	Do.	.....	Do. ...	10-4-1914	29-4-1914	Ditto. This municipality was omitted from the area traversed last year.
District Mymensingh (upland)	Katliar 137	Fulpur 202	.....	.....	...	...	...	...	342	...	...	...	...	...	...	Nil	0° 45′ 00″ E.	Do.	R. S. maps of dates 1854-56.	Good...	15-11-1913	15-5-1914	Longitudinal correction has been applied to this work.
District Mymensingh-Rangpur (Diara).	.....	.....	.....	.....	...	...	...	...	...	...	241	...	...	...	...	...	.....	...	.....	...	.....	.....	
District Mymensingh-Madhupur forest block on square system.	Madhupur forest block 232	.....	.....	.....	...	...	...	...	232	...	...	...	...	...	...	Nil	0° 45′ 00″ E.	Not yet	.....	Good...	15-11-1913	15-5-1914	Ditto.
District Mymensingh-Tippera Diara.	On Tippera side 92	On Mymensingh side 50	On river's channel 17	...	...	...	...	...	159	125	...	204	...	...	...	Nil	0° 45′ 00″ E.	Do.	R. S. maps of dates 1854-56.	Do. ...	1-11-1913	15-1-1914	Ditto.
District Noakhali (upland)	Sandip 141	Noakhali 110	Companygunj 34	Feni 237	Begamgunj 178	...	...	...	700	534 566	...	...	...	6	8·41	Nil	0° 30′ 00″ E.	Do.	R. S. map of 1863-64.	Do. ...	15-11-1913	15-4-1914	Ditto.
Chars in Bay of Bengal, district Tippera.	34	57	6	.....	...	...	...	...	97	...	...	...	...	...	...	Nil	0° 30′ 00″ E.	Do.	Ditto ...	Do. ...	1-5-1914	15-4-1914	Ditto.
Noakhali Municipality ...	.....	.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

APPENDIX I—PART B.

Statement of Outturn and Cost-rates for the year ending 30th September 1914.

DISTRICT AND TRACT.	Description of work.	Estimated area to be dealt with.	Year of inception of operation.	AREA SURVEYED IN SQUARE MILES. During the year under report.	AREA SURVEYED IN SQUARE MILES. Total, including previous years.	COST-RATES PER SQUARE MILE. During the year under report.	COST-RATES PER SQUARE MILE. From commencement to end of year under report.	Balance of area in square miles remaining for survey.	Estimated cost of completing area in column 9.	Estimated final cost-rate per square mile.
1	2	3	4	5	6	7	8	9	10	11
				District Operations.					Rs.	
Rajshahi (upland) ...	Traverse survey.	2,617	1910	818	2,496	54·8	79·6	1,140(a)	62,472	85·6
Do Municipality	.....	...	...	2						
Midnapore (upland) ...	.....	4,133	1910	933	4,018	43	42·4	382(b)	16,197	42·4
Do. Municipality	.....	...	...	33						
Noakhali, Tippera (upland).	.....	3,201	1913	832	834	33·5	33·5	2 367	1,26,634	53·5
Noakhali Municipality	.....	...	...	2						
Mymensingh (upland) ...	.....	6,382	1907	342	6,382	54·9	56·7	240(c)	13,634	56·7
Do. Madhabpur Jungle.	.....	...	...	332						
Mymensingh Meghna ...	.....	135	1913	135	135	30·4	30·4	...	...	...
Dhara Tippera do. ...										
Total ...	.....	...	...	3,629	...	...	...	...	...	...

(a) Includes Murshidabad, Pabna, Nadia and Bogra Dhoras.
(b) Includes some area for retraverse.
(c) Mymensingh, Rangpur and Bogra Dhoras.

Minor Operations.

NOTE.—Information regarding minor operations cannot be given, as petty jobs are mostly of relaying character and the work is linear miles only.

APPENDIX II.

Statement of sums expended during the year ending 30th September 1914.

District and Tract.	Description of Work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charge, including share of general establishment, or lump grant.	Share of control.	All book-debit charges other than share of control.	Total.	Direct charge including share of general establishment, or lump grant to end of year.	Share of control.	All book-debit charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
District operations.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dacca—									
Traverse	Traverse	3,888	675	175	4,738	1,09,264	20,344	Not available	1,29,608
Reproduction of village maps for distribution to landlords, etc.	Reproduction	8,806	1,330	245	10,384	...	...	...	...
Rajshahi—Traverse	Traverse	36,327	6,402	1,668	44,968	1,48,723	27,074	Not available	1,75,796
Midnapore—									
Traverse	Ditto	34,926	5,909	1,528	41,469	1,39,949	26,599	Ditto	1,70,478
Reproduction of village maps for purposes of alienation.	Reproduction	654	113	26	793	Not available.			
Reproduction of village maps for distribution to landlords, etc.	Ditto	836	145	34	1,015	Ditto.			
Noakhali—Traverse	Traverse	36,609	6,353	1,656	44,618	36,609	6,353	1,656	44,618
Mymensingh—									
Traverse	Ditto	25,283	4,390	1,143	30,816	2,82,648	52,609	Not available	3,45,057
Reproduction of village maps for distribution to landlords, etc.	Reproduction	5,511	956	226	6,693	Not available.			
Madhabpur Jungle Traverse	Traverse	14,049	2,439	636	17,124	14,049	2,439	636	17,124
(Meghna Diara) Traverse	Ditto	2,037	354	93	2,484	2,037	354	93	2,484
Tippera—(Meghna Diara) Traverse	Ditto	1,330	231	61	1,622	1,330	231	61	1,622
Bakarganj—Reproduction of village maps for distribution to landlords, etc.	Reproduction	121	21	5	147	Not available.			
Jalpaiguri—Reproduction of village maps for distribution to landlords, etc.	Ditto	8,366	1,453	351	10,170	Ditto.			
Faridpur—Reproduction of village maps for distribution to landlords, etc.	Ditto	7,941	1,324	279	9,544	Ditto.			
Minor operations.									
Mymensingh—Jurisdiction maps	Mapping	1,878	325	...	2,203	2,228	378	Not available	2,606
Jalpaiguri— Ditto	Ditto	1,159	199	...	1,349	2,270	412	Ditto	2,682
Rajshahi— Ditto	Ditto	987	141	...	928	1,461	238	Ditto	1,699
Dacca— Ditto	Ditto	1,181	205	...	1,386	1,181	205	Nil	1,386
Midnapore— Ditto	Ditto	314	55	...	369	314	55	Nil	369
Rennell's maps	Ditto	435	...	...	435	4,457	...	Not available	4,457
Gajhalid									
Police training	Ditto	324	56	...	380	324	56	Nil	380
Bishupore—Nazarpur case	Traverse work	704	122	...	826	2,556	420	Not available	3,076
Preparation of a duplicate of above	Mapping	20	5	...	25	20	5	Nil	25
Dacca— Diara cumprrative maps	Ditto	463	80	6	549	2,455	630	Not available	3,085
Pabna— Ditto	Ditto	1,431	246	228	1,905	1,821	308	Ditto	2,127
Mymensingh— Ditto	Ditto	1,413	246	228	1,886	1,799	303	Ditto	2,102
Dacca—Tippera—Diara case	Ditto	2,580	448	135	3,163	2,580	448	135	3,163
Chittagong Municipality (completion of records)	Traverse and records ...	822	142	307	1,271	17,024	4,451	Not available	21,475
Jalpaiguri—Tea gardens	Traverse and cadastral ...	5,554	963	424	6,941	35,405	6,128	Ditto	41,533
Rangpur—Accretion to mauzas Pilipkata and Sekandar.	Ditto	1,947	324	270	2,541	1,947	324	270	2,541
Relaying of pillars on the Jalpaiguri-Bhutan boundary.	Relaying	1,002	173	169	1,344	1,002	173	169	1,344

APPENDIX II—*concld.*

Statement of sums expended during the year ending 30th September 1914—concld.

District and Tract.	Description of Work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charge, including share of general supervision or head charge, if any.	Share of control.	All book-debit charges other than share of control.	Total.	Direct charge, including share of general supervision or head charge, if any.	Share of control.	All book-debit charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
Minor Operations—concld.		Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.
24-Parganas Sunderban set	Traverse and cadastral ...	594	95	149	834	594	95	145	834
Muruldabad-Rajshahi Diara and Midnapore Zamindari Company case.	Ditto ditto ...	1,166	199	35	1,378	2,440	392	Not available.	2,832
Tippera-Comilla Town Survey	Ditto ditto ...	3,770	654	...	4,424	10,374	1,705	Ditto	12,079
Howrah Town Survey	Ditto ditto ...	21,061	3,510	1,863	26,440	21,061	3,510	1,869	26,440
Malda-Rajmahal Sinhasans case	Ditto ditto ...	1,570	312	233	2,425	1,870	312	253	2,435
Darjeeling-Purnea demarcation	Demarcation	449	79	39	567	449	79	39	567
Bhargaon-Panjhari on Ramna-Bamna case ...	Mapping	316	55	10	381	316	55	10	381
Howrah-Damodar River dispute case	Traverse and cadastral ...	686	149	32	1,067	686	149	32	1,067
Calcutta Added Area Revision	Detail survey and demarcation.	11,153	1,950	256	13,357	11,153	1,889	335	13,357
Rampur-Bosnia Comparative maps	Mapping	20	5	...	25	20	5	...	25
Calcutta Town Revenue maps	Ditto	590	92	885	1,567	5,967	Not available.	1,681	7,648
Calcutta boundaries—Preparation of a comparative map.	Ditto	.....	...	74	74	279	...	74	353
Cooch-Behar-Goalpara—Demarcation of Revenue boundings.	Demarcation	3,857	668	...	4,525	3,857	668	...	4,525
Preparation of Revenue maps in Subdivision S. U. and portion of T. Grand Division 6.	Mapping	50	9	...	59	50	9	...	59
Calcutta Improvement Trust Survey and Demarcation.	Survey and demarcation	49,315	8,568	1,321	59,194	1,26,562	Not available.	3,899	1,30,961
Colouring of maps for the Improvement Trust ...	Mapping	200	35	...	235	200	35	...	235
Drawing Office, Bengal and Assam—									
Bogra—Reproduction of village maps ...	Reproduction	2	...	...	2		Not available.		
Chittagong—Ditto ditto	Ditto	580	94	22	696	...	...	...	...
Calcutta—Reproduction of municipal maps	Ditto	843	149	34	1,026	843	149	34	1,026
Darje-ling—Reproduction of miscellaneous maps.	Ditto	112	19	4	135	112	19	4	135
Dinajpur—Reproduction of village maps ...	Ditto	12	2	...	14		Not available.		
Howrah— Ditto ditto ...	Ditto	18	3	1	22	18	3	1	22
Tippera—Reproduction of miscellaneous maps.	Ditto	525	90	21	636	525	90	21	636
24-Parganas—Reproduction of miscellaneous maps.	Ditto	38	6	1	45	38	6	1	45
Record Section	Records	3,726	649	...	4,375	27,057	6,072	...	34,029
Thana and Tribunation maps	Mapping	11,594	2,025	429	14,148	31,150	6,060	429	37,488
Map Issue and Copying Section	Ditto	1,329	232	...	2,182	3,841	987	...	3,928
Comilla Survey School in Tippera	School	33,788	5,867	4,129	43,784	33,788	5,867	4,129	43,784
Total	.....	3,65,931	61,428	19,567	4,36,926	...	...	...	...

APPEN.

DRAWING OFFICE OUTTURN.

Survey year

DISTRICTS.	REPRODUCTION SECTION.																					
	VILLAGE MAPS.						Miscellaneous.			Triangulation charts.			Jurisdiction maps, 1" = 1 mile—Preliminary.			Jurisdiction maps, 4" = 1 mile.			District maps.		
	Previously supplied.		Supplied during the year.		Total to date.																	
	Sheets or maps.	Copies.	Sheets or maps.	Copies.	Sheets or maps.	Copies.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
BENGAL.																					
Bakarganj ...	753	67,807	12	996	765	68,153	100	1,393	1,493	20	...	20	545	2,045	2,590	...	...	...	26	...	26
Backura ...	...	...	...	...	...	...	...	...	...	...	...	...	180	840	1,020	...	...	...	20	...	20
Birbhum ...	139	20,398	...	...	229	20,398	...	...	...	...	...	...	140	...	140	...	...	...	...	...	...
Bogra	8	400	...	...	8	400	...	23	23	...	...	...	122	...	122	...	...	...	26	...	26
Burdwan ...	...	...	...	...	...	...	400	...	400	...	...	...	260	772	972	...	...	...	30	...	30
Calcutta ...	...	...	...	...	...	...	2,419	12,644	15,063	...	...	...	...	...	...	...	...	...	...	...	...
Chittagong ...	9,249	25,746	25	2,167	9,274	54,888	100	1,026	1,126	...	...	...	...	...	...	...	...	...	26	...	26
Dacca ...	402	63,434	677	113,684	1,349	201,139	780	1,175	1,955	50	...	50	1,222	953	2,150	...	...	...	26	...	26
Darjeeling ...	...	...	...	...	...	...	...	1,500	1,500	...	...	...	...	...	...	...	...	...	...	...	...
Dinajpur ...	32	5,163	...	...	32	5,163	42	250	195	...	...	...	300	...	300	...	...	...	26	...	26
Faridpur ...	4,397	157,801	1,634	94,349	6,041	272,241	800	119	919	50	...	50	705	...	705	280	100	380	26	...	26
Hooghly ...	126	6,402	...	...	126	6,402	...	...	...	...	...	...	200	630	830	...	...	...	26	...	26
Howrah ...	...	...	...	...	...	...	206	250	456	...	...	...	180	540	720	...	...	...	26	...	26
Jalpaiguri ...	543	49,320	715	105,202	1,258	154,522	122	7,210	7,332	...	...	...	...	...	...	...	...	...	31	...	31
Jessore ...	...	...	...	...	...	...	...	...	...	...	...	...	750	810	1,560	...	...	...	26	...	26
Khulna ...	32	122	...	...	32	122	...	...	...	...	...	...	200	1,320	1,520	...	...	...	26	...	26
Maida ...	19	1,000	...	...	19	1,000	...	...	...	50	...	50	120	...	120	...	...	...	26	...	26
Midnapore ...	2,100	36,729	1,745	19,957	3,395	56,686	...	75	75	...	...	...	270	...	270	...	...	...	26	...	26
Murshidabad ...	29	104	...	...	29	104	225	...	225	...	...	...	260	...	260	...	...	...	26	...	26
Mymensingh ...	2,490	243,360	962	73,299	4,370	316,659	306	741	1,737	50	...	50	200	180	540	...	...	...	26	...	26
Nadia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26	...	26
Noakhali ...	91	3,613	23	1,063	74	4,734	...	146	146	...	...	...	...	240	240	...	...	...	26	...	26
Pabna	42	3,960	...	...	42	3,960	...	...	...	...	...	...	156	...	156	...	...	...	26	...	26
Purnea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajshahi ...	34	3,000	...	...	34	3,000	1,062	...	1,062	50	...	50	470	144	614	...	...	...	26	...	26
Rangpur ...	...	...	...	...	...	...	16	...	16	...	...	...	...	...	...	...	...	...	26	...	26
Tippera ...	26	1,340	...	...	26	1,340	741	7,035	7,776	...	...	...	...	...	...	...	...	...	26	...	26
24-Parganas ...	...	...	...	...	...	...	...	450	450	...	...	...	200	1,200	1,400	...	...	...	26	...	26
Cooch Behar ...	...	...	...	...	...	...	2,180	475	2,655	50	...	50	...	...	...	...	...	...	...	...	...
Bhagalpur ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ganges Diara ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sikkim ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hijli ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	20,918	1,111,373	5,353	411,992	26,271	1,523,365	10,239	34,415	44,654	350	...	350	6,671	17,067	24,538	280	100	380	1,309	...	1,309

DIX III.

Calcutta and Shillong.

1913-14.

MAP RECORD AND ISSUE SECTION.

Original Cadastral and Mond. Maps.			Revenue Diara and Topo. Maps.						Traverse Volumes of All Kinds.						Field Books.			Calcutta Survey Sur maps.			Thana Triangulation, Index and Traverse para.			Traces for reproduction		
Received.			Received.			Issued.			Received.			Issued.			Received.											
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
3,803	13	3,816	12	...	12	...	...	...	66	1	67	7	10	17	61	2	63	...	...	...	29	44	73	2,372	...	2,372
317	505	1,022	4	...	4	...	...	...	7	11	18	...	6	6	...	...	...	...	...	...	17	...	17	...	...	...
211	772	1,043	51	...	51	...	...	...	3	22	25	...	18	18	5	...	5	...	...	...	...	22	22	...	...	...
291	...	291	14	...	14	...	...	...	5	...	5	...	...	...	2	...	2	...	...	...	...	...	...	291	...	291
134	156	290	8	...	8	...	...	...	29	23	51	...	2	2	34	...	34	...	...	...	5	2	5	...	...	...
...	...	...	...	...	...	...	...	...	2	2	2	...	...	...	...	...	...	2,991	2,092	4,283	...	...	...	...	...	...
3,253	...	3,343	20	...	20	1	...	1	42	...	42	...	...	...	60	...	60	...	...	...	20	...	20	1,298	76	1,374
485	2,050	2,535	5	...	5	5	...	5	17	...	17	6	...	6	75	...	75	...	...	...	29	43	72	...	...	...
500	694	1,194	11	...	11	...	...	...	16	14	30	...	1	1	39	...	39	...	...	...	7	...	7	312	...	312
994	...	994	19	...	19	...	...	...	30	4	34	...	...	...	7	...	7	...	...	...	...	...	...	...	...	...
4,672	2,196	6,868	8	...	8	...	...	...	29	...	29	...	3	3	37	...	37	...	...	...	20	177	205	...	...	...
151	338	518	15	...	15	...	...	...	26	1	27	...	...	...	68	...	68	...	...	...	9	...	9	...	...	...
217	220	450	...	...	...	...	...	...	2	26	28	...	1	1	2	47	49	...	...	...	...	2	2	...	...	...
2,115	1,216	3,331	13	1	2	3	...	3	48	...	48	9	...	9	90	...	90	...	...	...	12	63	90	...	...	...
...	394	394	16	...	16	...	...	...	24	39	63	...	19	19	3	...	3	...	...	...	...	...	...	...	...	...
457	550	907	2	...	2	...	...	...	12	12	24	...	...	...	29	...	29	...	...	...	10	63	90	...	...	...
173	...	173	25	...	25	2	2	4	6	...	6	1	...	1	2	...	2	...	...	...	10	...	10	...	...	...
...	2,337	2,337	17	...	17	...	...	...	19	23	81	...	...	...	143	...	143	...	...	...	146	102	248	176	...	176
255	516	771	49	...	49	4	...	4	5	4	9	...	...	...	...	...	...	...	...	...	17	...	17	266	...	266
2,364	775	4 139	65	...	65	42	3	45	42	...	42	25	2	27	39	...	39	...	...	...	4	86	90	...	...	...
1	4	5	27	...	27	...	...	...	3	31	34	...	21	21	2	1	3	...	...	...	9	2	11	...	...	...
625	28	753	5	...	5	4	...	4	14	...	14	8	...	8	2	...	2	...	...	...	...	...	...	91	...	91
21	13	34	27	...	27	17	9	26	2	...	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
...	...	...	...	3	3	...	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	7	62	...	62	32	29	61	4	...	4	3	...	3	1	...	1	...	...	...	...	...	...	...	...	...
...	...	...	13	...	13	...	6	6	16	...	16	...	1	1	4	...	4	...	...	...	31	...	31	...	...	...
1,842	10	1,853	18	...	18	3	...	3	29	...	29	4	9	13	18	...	18	...	...	...	...	...	...	...	...	...
421	1,124	1,545	43	...	47	...	...	...	17	25	42	...	11	11	28	...	28	...	...	...	14	40	54	...	...	...
...	...	...	8	...	8	...	...	...	10	12	22	...	...	...	21	...	23	...	...	...	...	...	...	...	...	...
...	...	...	4	...	4	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	23	...	23	9	2	11	42	3	45	9	2	11	72	...	72	...	...	...	...	2	2	...	...	...
...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...
...	...	...	6	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16,855	14,960	31,815	595	3	598	127	69	179	620	281	901	68	136	174	935	70	905	2,991	2,092	4,283	400	675	1,075	6,205	76	6,871

APPENDIX IV.

Statement showing Traverse Survey and Reproduction of Maps of the Districts under Settlement.

Names of Districts.	Traverse Survey.							Reproduction.							Remarks for increase and decrease of expenditure.
	Total area of the district estimated for survey.	Area completed up to previous year.	Estimated programme for the year under report.	Area completed during the year under report.	Remaining.	Estimated cost for the year.	Actual cost for the year including establishment.	Forecast by Director of Land Records. Number of sheets.	Number of copies.	Number of sheets received.	Actual number of copies reproduced.	Estimated cost for the year.	Actual expenditure for the year (including establishment).	Difference between columns 9 and 11.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Estimates by survey year do not exist.	Rs.					Estimates by survey year do not exist.	Rs.	Rs.	
Rajshahi	3,617	1,859	921	921	1,146 (a)		44,968	...	...	...	...		...	...	
Midnapore	4,133	3,052	966	966	322 (b)		41,469	1,392	65,100	370	10,927		{ +793 +1,012 }	...	
Noakhali, Tippera	3,291	...	834	834	2,357		44,618	...	...	...	...		...	...	
Mymensingh (upland)	6,332	5,309	874	874	210 (c)		{ 30,616 17,194	2,300	200,000	776	73,299		6,695	-1,225	
Mymensingh (Dhara) Tippera	135	...	135	135	...		{ 2,453 1,632	...	...	...	...		...	...	
Jalpaiguri	...	...	...	...	...		...	1,000	80 000	1,216	109,282		10,170	+216	
Faridpur	...	...	...	...	...		...	2,080	312,000	2,198	94,349		8,041	+116	
Dacca	...	...	...	...	...		...	1,632	244,800	2,053	119 894		10,684	+416	
Bakarganj	...	...	...	...	...		...	...	...	12	266		147	...	

(a) Refers to $\frac{\text{Rajshahi}}{\text{Murshidabad, Nadia, Pabna and Bogra}}$ Diaras.

(b) Includes some area for reiverse.

(c) Refers to $\frac{\text{Mymensingh}}{\text{Rangpur and Bogra}}$ Diaras.

* For the maps reproduced for alternation purposes,
† " " Upland. " " distribution.
‡ " Madhabpur Jungle.

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REPORTS

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE YEAR ENDING

30TH SEPTEMBER 1914.

CALCUTTA :

THE BENGAL SECRETARIAT BOOK DEPOT.

1915.

[Maximum limit, 30 pages.]

REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS, BENGAL.

TABLE OF CONTENTS.

	Para.	Page.
Preamble	1	1
Introductory	2—3	1
Part I		
Major operations	4—64	1—16
Minor operations	65—78	16—19
Part II		
General	79	19—20
Provincial programme	80	20
Amalgamation of settlement procedure	81	20—21
Accounts	82	21
Maintenance of boundary marks	83	21
Jurisdiction	84	22
Utilization of settlement records	85	22
Final reports	86	22
Training of junior officers	87	22
Training of munsifs	88	23
Training of kanungos	89	23
Promotions and prospects	90	23
Tours	91	23
Settlement staff	92	23—24
Conclusion	93	24

LIST OF APPENDICES.

		Page
Appendix	I.—Progress of survey and the preparation of a record-of-rights in the Province	i
,,	II.—General progress in Survey and Settlement work during the year ending the 30th September 1914	ii—v
,,	III.—Return of disputes and inspections during the year ending the 30th September 1914	vi
,,	IV.—Progress in revision of land revenue during the year ending the 30th September 1914	vii
,,	V.—Return of rent-settlement in areas not under revision of land revenue during the year ending the 30th September 1914	viii
,,	VI. Results of appeals during the year ending the 30th September 1914	ix
,,	VII.—Nature and number of holdings recorded in each settlement during the year ending the 30th September 1914	x
,,	VIII.—Progress made in recovery of costs during the year ending the 30th September 1914	xi
,,	IX.—Expenditure for work done (including all book-debit charges) during the year ending the 30th September 1914	xii—xiii
,,	X.—Result of inspection of survey marks during the year ending the 30th September 1914	xiv
,,	XI.—Statement showing maps in stock, received and sold during the financial year ending the 31st March 1914	xv

DEPARTMENT OF LAND RECORDS, BENGAL.

No. 125-1983.

FROM M. C. McALPIN, ESQ., I.C.S.,

Director of the Department of Land Records, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 2nd January 1915.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted in the Presidency of Bengal under the supervision of this Department during the year ending the 30th September 1914. I was in charge of the Department during the whole year.

Introductory.

2. Survey and Settlement operations under the supervision of the Department were in progress in 19 districts of the Province, of which 6 were major operations financed from Imperial funds, and 14 minor operations. The former were in progress in Mymensingh, Dacca, Faridpur, Rajshahi, Jalpaiguri and Midnapore, while the latter operations were conducted in the districts of Birbhum, Burdwan, Bankura, Hooghly, 24-Parganas, Nadia, Murshidabad, Jessore, Khulna, Bakarganj, Faridpur, Noakhali, Tippera and Dinajpur. The area cadastrally surveyed in the major operations during the year was 3,262 square miles and preliminary records were written for 3,360 square miles. Records were attested in 3,735 square miles and finally published in 4,492 square miles. The total outturn in respect of the minor operations was 81 square miles of cadastral survey, 97 square miles of preliminary record-writing, 171 square miles of attestation and 54 square miles of final publication.

3. The total area for which a record-of-rights has now been completed in the Presidency is 15,449 square miles, out of which 4,528 square miles (excluding 18 square miles of revision work in Bakarganj) were completed during the year under report. As stated in my last year's report, the traverse Survey of Tippera-Noakhali has partly been completed and cadastral survey is now in progress. The inception of the Survey and Settlement operations in the districts of Bankura and Jessore have been sanctioned by the Government of India and the traverse survey will be undertaken during the current field season.

PART I.

Major Operations.

Mymensingh.

	Programme according to last revised estimate.	Actual programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.
For the year—			
Field work ...	914	850 (871 in case of bujharat).	850 (847 in case of bujharat).
Attestation ...	780	847	800
Janch ...	1,206	1,486	1,608
Printing ...	1,100	1,270	897
Recovery ...	1,058	950	1,023

	Programme according to last revised estimate.	Actual programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.
Up to date—			
Field work ...	5,553	...	5,330
Attestation ...	4,589	...	4,433
Jamch ..	3,917	...	4,301
Printing ...	3,081	...	2,260
Recovery ...	1,863	...	1,994

4. Mr. F. A. Sachse, I.C.S., was in charge throughout the year.

5. The difference between the revised and actual programmes for the year is due, in the case of field-work, to a small area on the Tippera bank having been handed over to the Settlement Officer of Dacca, in attestation to the inclusion of some miscellaneous arrears, in printing to arrears, and in jamch to work being taken up in advance of the revised programme. Jamch has been accelerated by the abandonment of partition by the Settlement Department. The above figures show that progress is very satisfactory. The slight arrear in bujharat during the year is due to the fact that a small area had to be left out as the jute was so high that the boundary marks of the fields could not be seen. That in attestation is in miscellaneous work for which officers were not available, and in recovery owing to the collapse of the jute trade. Jamch is, however, in advance of the full programme up to date. The arrear in printing is due to a special cause explained later.

6. The following table compares the cost-rates per square mile in this settlement with the standard cost-rates :—

	During the year.			Up to date.			Standard.		
	Cost-rate.	Number of plots.	Number of interests.	Cost-rate.	Number of plots.	Number of interests.	Cost-rate.	Number of plots.	Number of interests.
	Rs.			Rs.			Rs.		
Cadastral survey and khanapuri and initial office work.	144	1,049	342	153	912	259	165	1,000	250
Bujharat ...	80	1,048	...	75	912	...	86	1,000	...
Attestation ...	60	...	220	59	...	243	66	...	250
Printing ...	40	...	210	36	...	211	54	...	250
Recovery ...	12	...	...	11	...	...	20	...	...
Other items except supervision and contingencies.	66	...	...	65	...	...	81	...	...
	402	...	...	399	...	...	472	...	...

7. A part of the total decrease from the standard rate of Rs. 472 for the above items to Rs. 399 is to be attributed to the prevailing low intensity of interests per square mile in the major portion of the area, but it is partially due to economies effected by the Settlement Officer as well as to the easiness of conditions in some parts of the area. In the economies must be classed the use of the calculating machine for recovery, the economical way in which printing is conducted and the amalgamation of small Revenue survey mauzas. The slight increase shown under printing during the year under report over the previous year's rate is due to the check of the printing of the whole record which is now made after it is printed.

8. As regards supervision and contingencies, the following figures compare the actual expenditure with Mr. Jack's standard :—

	During the year.	Standard.	Up to date.	Standard.
	Rs.	Rs.	Rs.	Rs.
Supervision ...	98,935	1,19,358	5,64,153	6,96,255
Contingencies ...	49,394	59,679	3,25,896	5,10,587

9. There appears to be a large saving of expenditure under both heads. This is due in a measure to the fact that the standard is based on the total area of the district, whilst all the charges for supervision do not increase in the same proportion. It is also due to the straightforward conditions of the settlement, to economies effected by the Settlement Officer as well as to economies in buildings which have, however, to some degree hampered the work. For the year if the standard is based on the normal area of a 7-block district, the standard expenditure on supervision and contingencies for the year will be, respectively, Rs. 1,00,800 and Rs. 49,400 to which sums the expenditure actually approximates.

10. There is little to report regarding field-work or attestation as no new problems were encountered. The field-work was taken up in a compact block in thanas Kendua and Kishorganj. It is reported to be the most difficult field season encountered. Interests averaged 342, whilst in many places plots averaged 1,300 to the square mile. Communications were also difficult. In the east of the area during the rains the country is a vast sea interspersed by small islands of village homesteads in which there is not a spare inch unused. At other times it is a sea of *boro* paddy.

11. The attestation of the fifth block was completely finished. It is reported to have been straightforward. In the Susang pargana the device of enhancing rents by conversion of the same into produce-rents was encountered. This was met by commutation as it has been held by the High Court that this is not a case of illegal enhancement. The Settlement Officer, however, did not consider it advisable to encourage commutation as the majority of cases related to under-raiyats, whose rents the law provides no facility for commuting.

12. Added to the initial difficulties in starting the press in this settlement referred to in last year's report, the Settlement Officer was handicapped by the unavoidable late arrival of ten presses from Faridpur, and it is this fact which accounts for the arrears of the year. The Settlement Officer has located five of them at Serajganj in order to save the trouble of sending the records by rail and steamer to Mymensingh. This has incidentally resulted in closer supervision. The cost-rate per khatian continues to be low, viz., 2 annas 8 pies, whilst the outturn per press is 1,054 khatians per month. The system of checking the whole record, after printing, costs 12 annas per 100 khatians—a very small cost considering the value of the check. The Settlement Officer reports that the mistakes found are usually of an unimportant nature, and that with a free use of section 108A he thinks that most of the mistakes made in printing are eliminated. The necessity of this check was remarked on last year, and the system is now standardized. The printed khatians are much appreciated by the landlords in the district and many copies are sold, some landlords buying as many as seven copies of the record. This is to a great extent due to the zeal with which the Settlement Officer has set about bringing the matter to the notice of the landlords of the district. This is worthy of imitation in other settlements.

13. Recovery would have made a greater progress, if it had not been for the collapse of the jute trade. What arrears there are, are from landlords who have not been pressed to pay as yet. The original recovery proposals still hold good. The calculating machine introduced by Mr. Sachse for printing receipts and totalling has worked satisfactorily and with some slight saving in cost. Government has authorized the extension of the experiment to other settlements.

14. Case-work has presented some difficulty and has fallen behind, particularly in the Patiladaha pargana. This matter is separately before Government and I need not dilate on it here. The landlords have done well over enhancements of rent under section 105; the net result is the same as in Faridpur, viz., 24 per cent. of the original rent.

Dacca.

	Programme according to last revised estimate.	Performance.
	Sq. miles.	Sq. miles.
For the year—		
Cadastral	670	735
Bujharat	670	829
Attestation	940	1,052
Janch	960	1,080
Final copy	675	181
Recovery	630	30
Up to date—		
Cadastral	3,250	3,157*
Bujharat	3,250	3,130*
Attestation	2,580	2,543
Janch	2,580	2,520

15. Mr. F. D. Ascoli, I.C.S., was in charge throughout the year.

16. Actually except in final copy and consequently in recovery, the arrears in which are due to the late arrival of presses, the Settlement Officer has more than completed his programme. The deficiencies shown in the programme are due to the difference between estimated and actual figures. In cadastral and bujharat, besides completing the slight arrears in the previous year due to the non-receipt of some of the sheets for the Tippera bank, the additional cadastral survey of an area belonging to Mymensingh was taken up and the bujharat completed on the Tippera bank. In these branches the whole district has been completed. In addition to the original programme, the attestation of the whole of the Madhupur jungle has been completed as well as of a portion of the Tippera diara, and parts of thanas Sabhar and Keraniganj which the Settlement Officer was able to take up in advance of the programme in the previous year. The Settlement Officer has thus materially reduced his programme for the present field season.

17. **Cost.**—The following table compares the cost-rates per square mile in the main branches :—

	During the year.			Up to date.			Standard.		
	Number of plots.	Number of tenancies.	Cost.	Number of plots.	Number of tenancies.	Cost.	Number of plots.	Number of tenancies.	Cost.
			Rs.			Rs.			Rs.
Cadastral ...	962	304	91	1,074	467	91	1,000	250	110
Khanapuri ...	930	...	35	1,074	...	48	1,000	...	37
Preliminary Office work.	...	...	7	...	...	13	...	...	12
Bujharat ...	954	304	61	1,093	464	83	1,000	...	86
Attestation ...	...	285	49	...	477	88	...	250	66
Printing ...	...	637	100	...	637	100	...	250	54

In all branches of work there is a decrease in cost-rates for the year. This is partially to be attributed to the fewer tenancies found, for which decrease the Madhupur jungle is mainly responsible. Actual rates also

* Completes the district.

compare very favourably with the standard rates, and this is to be ascribed to certain economies. Of these I may mention the saving in initial recess on account of the adoption of the system of making the kanungo his own khasra section, the linking-up with bujharat of attestation in the simple Madhupur jungle and some diara areas, both referred to last year, and thirdly the square traverse system which resulted in savings in cadastral survey. This latter system results, however, in so many innovations in other respects of doubtful work that it has been practically decided by Government to drop the experiment except in areas where there has been no revenue survey. The cost of printing can only be measured per khatian, and this gives a cost-rate of 2½ annas per khatian against a standard of 3 annas. This is promising for the first year of printing.

The expenditure on supervision and contingencies is shown in detail in the following statement :—

	During the year.	Standard.	Up to date.	Standard.
	Rs.	Rs.	Rs.	Rs.
Supervision	92,338	1,01,024	3,12,189	3,81,997
Contingencies ...	70,209	41,041	2,38,934	2,49,403

The excess in contingencies during the year is attributable to heavy initial expenditure on the press, which occurred during the period.

18. The fourth and last block of the district formed the programme for field-work, including a small area on the Meghna in Mymensingh and the areas already referred to. From the point of view of survey this area, covered with extensive *beels* and much jungle, was generally most disagreeable. In Sahhar and Keranigauj the record was more complicated than was expected. Part of the area consisted of extensive estates, but each had its own peculiar problem, whilst the rest was covered by a confused tangle of estates. One unusual problem which arose for decision was whether certain leases only gave the tenant the right to the fuel and timber, or to the land also. It was decided in favour of the tenant. Neither the Meghna diara nor the Madhupur jungle presented much difficulty at this stage.

19. The programme for attestation covered the third block of the district with the additions already mentioned. Kapasia thana presented few difficulties except in the south where a large number of complex subordinate tenures was found. The majority of these were created for the purpose of jungle clearing or as rewards for the family of the Bhowal Raj, but the record is complicated by the fractional shares which the proprietor has obtained in them. Thana Raipura presented greater difficulties and much subinfeudation was found. There are numerous examples of bad estate management. In one estate there exists a curious practice of selling all posts by auction annually to the highest bidder with results to the estate which can be better imagined than described. In this thana, where money-lender and the landlord are often the same person, the evils of the *barga* system were specially apparent. Here the tenancy is the result of purchases of mortgages and sales to recover loans. The money-lender often re-settles the land with the raiyat at a rent equal to the actual commuted value of the portion of the crop he decides he ought to get, raising the rent fifteen or twentyfold. The proposed legislation on the transferability of occupancy rights will, if it becomes law, definitely give the tenant occupancy rights in such a case, but it will not protect him against such a rent. The root of the evil lies in the usury laws, or rather in their absence. In default of any direct legislation on the subject of *barga* tenancies we must look to a change in these laws and to a careful extension of the Co-operative Credit Societies. If such measures are unavailing, then there are signs that the *barga* question will have to be boldly faced.

20. Recess work was satisfactorily disposed of, and much credit is due to Mr. Newton for the standard of draughtsmanship in this settlement.

Printing started during the year under report on the arrival of presses from England and satisfactory progress has already been made. As elsewhere, a complete check of the record is made after printing, and mistakes are reported to be diminishing.

21. Five hundred and fifteen estates were under revision of land revenue during the year and in all, except half a dozen cases, the rent-rolls have been draft-published, and in four-fifths they have been submitted for confirmation. They comprise an area of 110 square miles. The most troublesome feature of the work was the small size of each estate. This, however, facilitated the experiment which the Settlement Officer introduced of dealing with the rent work at the time of attestation. The increase in the rent-roll of the raiyats is from Rs. 21,928 to Rs. 38,595, or by 75 per cent. on the original rent. Increase or extension of cultivation accounts for 35 per cent. and neighbouring rates for 25 per cent. In the vast majority of cases the rents fixed were accepted by the raiyats without objection. There is, the Settlement Officer reports, likely to be a large increase of revenue in this district mainly because the Settlement Officers of the past did not approximate their proposals to prevailing rates, whilst in some cases, for reasons which subsequent information shows cannot be justified, no enhancements have been made for land rented at such rates as Re. 1-8 an acre, when the surrounding rates of similar lands are Rs. 4-8 per acre. It must be remembered, however, that the district settlement alone affords full information regarding such rates, and provides a means of testing the equitability of the rents in Government estates.

22. Bad management is reported to be extremely rife in the temporarily-settled estates on the rivers. Some of the proprietors or their staff deliberately settle out diluviated lands on their reappearance with persons other than the original tenant, whilst they still take rent from the latter. The Settlement Officer has had to recommend that two estates should be made *khas*.

23. The settlement of the Dacca town has been carried up to final *panch* and opposition to it has been dropped in consequence of the decision of Government to drop the *lakhraj* question. Diara resumption work made good progress. The Board have decided that the Jamuna is resumable. Cess revaluation proceeded apace; 7,141 estates have now been revalued out of a programme of 20,303, the increase in the cess being 44 per cent. Under Government orders the major portion of the partition work was abandoned and what remains is practically complete.

24. The last cadastral season in Dacca is now over and a large number of officers and the majority of the kanungos have been transferred elsewhere.

Faridpur.

	Programme according to last revised estimate.	Actual programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.
For the year—			
Final copy (printing) ...	627	771	771
Recovery ...	1,710	1,140	1,086
			Cases.
Case-work sec. 105	... ...	...	18,763
„ sec. 106	... ...	...	6,894
Up to date—			Sq. miles.
Final copy (printing) ...	2,696	2,696	2,696
Recovery ...	2,423	2,035	1,981
			Cases.
Case-work sec. 105	... ...	...	20,029
„ sec. 106	... ...	...	7,383

25. Mr. B. C. Prance, I.C.S., was in charge throughout the year.

26. The differences between the actual and revised programmes for the settlement year are due to the arrears of final copy and recovery left pending

at the end of the previous year. These were respectively explained in last year's report by the damage and delay caused by the cyclone, and the lateness of the jute crop and the necessity for a revised apportionment proposal. In the case of recovery it was therefore necessary to revise the programme so as to throw more work into the present field season; but the arrears of final copy were all thrown into the programme of the year under report and completed.

27. In addition to the items in the heading the programme for the year consisted of the completion of the maps and statistics of cess revaluation, partition and a little outstanding work in jamabandi and diara. Hampered though he was by the prevalence of fever amongst his staff and another cyclone, the Settlement Officer, with the exception of 100 square miles of topographical maps, a trifling arrear in recovery amply made up for by the recoveries being in excess of what was anticipated and a few other trifling items, has accomplished his programme. Practically nothing but case-work, recovery in the remaining area of 715 square miles and the final report remains for disposal before the settlement closes. It is budgeted to close in the present settlement year.

28. The estimate and cost-rates in this settlement have been so often under examination that few words are necessary. There has, however, been a slight increase over the revised estimates submitted to Government, mainly in two items, press and case-work. In the press, the outturn of 1,500 khatians per press per month could not be maintained on account of the prevalence of fever amongst the staff which reduced the average to 1,100. This raised the cost-rate per khatian from an estimated rate of annas 2-2 per khatian to annas 2-8 or in terms of square miles from Rs. 73 to Rs. 95. Also it was found that 50,000 khatians more than originally calculated had to be dealt with. In case-work also extra expenditure will be involved owing to its abnormal amount and the necessity of extending the settlement till September to cope with it. The gross entire settlement expenditure over the revised estimate is Rs. 35,000. This expenditure will not, it is anticipated, however, materially affect the net cost of the settlement, nor will it affect recovery proposals. Great attention is paid to economy in every branch.

29. The principal item disposed of during the year was printing. This was dealt with at length in last year's report, whilst, as already remarked, the outturn per press fell. The rate per khatian for the printing work of the whole district, now completed, stands at annas 2-8 per khatian against an original estimate of annas 3. This result is eminently satisfactory.

30. The next important item under disposal was case-work. The large number of cases pending necessitated the deputation of twelve officers in all to this work. Amongst them, through the courtesy of the Hon'ble High Court, three munsifs were specially deputed for this work. They have been employed on work under section 106. During the year 18,763 cases affecting 27,444 tenancies under section 105 were disposed of; in the case of 13,049 the result was an enhancement of rent. The landlords have fared well on the whole, as the average enhancement in the case of raiyats was 24 per cent. of the original rent, of which more than half is accounted for by rise in prices and about one-third by increase in area. In 81 per cent. of the appeals which have been tried, the decision of the settlement courts has been upheld.

31. Difficulties regarding court-fees were prominent. The Government of India notification reducing court-fees under section 106 to the amount of an *ad-valorem* fee chargeable under the Court-fees Act, when the amount of such fee would be less than ten rupees, led, after some discussion and a ruling of the Special Judge practically to the effect that such an *ad-valorem* fee must be found, to the issue of certain instructions to act as a guide to the Revenue courts and as a check on the attempts which had hitherto been in force of defrauding Government by filing plaints absurdly undervalued.

32. The third important item during the year was recovery. The slight falling-off of 54 square miles in a programme of 1,140 is entirely due to the falling-off of the price of jute, which in August and September led to realizations of about half of what was expected. Had it not been for this, the Settlement Officer would have exceeded his actual programme which, as a matter of fact, he did in actual money realizations, viz., by Rs. 35,597 over an estimated figure of Rs. 7,06,000. The system of having different coloured receipts for classes of annas 4, annas 8 and up to Rs. 2 works extremely well.

33. Cess revaluation was completed in the year and the results are satisfactory inasmuch as an increase of 60 per cent., due to working on the accurate basis of a settlement record, was obtained. The results in land revenue settlements and diara work were equally gratifying. In partition 14 estates, with an area of 88 square miles, were completed and this finishes partition work by the Settlement Officer.

34. Again I have to report a cyclone. Fortunately, however, this one occurred too early in the morning to cause any damage to life, but the buildings suffered considerable damage. The records through the foresight of the Settlement Officer were not severely damaged as they were in a pucca building.

Rajshahi.

	Programme according to the last revised estimate.	Actual programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.
For the year—			
Survey and khanapuri ...	860	870	870
Bujharat	940	996	974
Attestation	880	842	818
Office-work—janch	880	842	484
Up to date—			
Survey and Khanapuri and Bujharat	1,740	1,712	1,712
Attestation	880	842	818
Office-work—janch	880	842	484

35. Mr. W. H. Nelson, I.C.S., was in charge throughout the year.

36. The actual programme for the year differs only from the original programme in that it contains certain arrears of bujharat postponed for the reason given last year, viz., that the area was water-logged. Where the two programmes differ in other respects the difference is entirely due to the fact that the new figures are the actual areas found and not those for the purposes of the original programme.

Except for 22 square miles of bujharat, 358 square miles of janch. 24 square miles of attestation and some 61 square miles of objection, the whole programme was completed. The small arrear in bujharat is accounted for by the fact that the area went under water early in the season and its bujharat therefore could not be taken up. The arrear in attestation and objections is due to the fact that the arrangements for a compromise in a rent-dispute affecting the whole of the uncompleted area caused considerable delay. That in janch is attributed to the ill-health of the staff, which affected both the quality and quantity of the record. All these arrears will be rapidly disposed of. The progress made is satisfactory.

37. The following statement compares the cost-rate per square mile in the main branches :—

		During the year.			Up to date.			Standard.		
		Number of plots.	Number of tenancies.	Cost.	Number of plots.	Number of tenancies.	Cost.	Number of plots.	Number of tenancies.	Cost.
				Rs.			Rs.			Rs.
Cadastral	...	1,556	351	99	1,527	367	101	1,600	250	110
Khanapuri	...			62			47			87
Preliminary	office-									
work	...			13			14			18
Bujharat	...			30			90			86
				244			252			251
Attestation	...	...	349	60	...	349	60	...	250	66

Considering the large number of interests and plots recorded the working of the settlement has been very economical.

Figures for supervision and contingencies are as follows :—

		During the year.	Standard.	Standard.	Up to date.
		Rs.	Rs.	Rs.	Rs.
Supervision	...	74,434	1,08,800	1,28,910	1,93,800
Contingencies, etc.	...	62,342	91,800	97,586	1,73,400

The saving in contingencies, etc., is not real as there remain buildings to be paid for. That in supervision is accounted for by savings in salaries and by the fact that as the kanungos were doing bujharat till late in the year in both seasons, little of their pay could be debited to supervision.

38. **Field-work.**—The second block consisting of the Naogaon subdivision came under survey and settlement during the year under report. In this area, in addition to the permanent marsh or "beel" lands which formed a feature of the first block, another class of country was found, viz., the "Barind," distinguishable by its red soil, gentle undulations and terraces of rice fields. Here are found the original reclaimers of the soil, aborigines and semi-aborigines from the Chota Nagpur plateau or the Santhal Parganas. Just as in other similar areas, it is reported by the Settlement Officer that, owing to their improvident habits, they are now "losing their lands and dropping back to the condition of landless labourers." These remarks indicate that an enquiry is necessary to ascertain whether the contemplated legislation to prevent the alienation of land by aborigines and semi-aborigines would not be applicable to this area. In anticipation, therefore, the Settlement Officer will be requested to have special enquiries made. The other peculiarity of the area is the cultivation of *ganja* under the supervision of Government near Naogaon itself. In this connection the Settlement Officer is supplying the Excise Department with special statistics regarding the *ganja* cultivation in each village. No special difficulties were encountered beyond the difficulties of survey in the swampy and water-logged area. The main difficulty throughout was the mere bulk of the area.

39. **Attestation.**—The attestation of the Natore subdivision, the first block, formed the programme of the year. Here the Settlement Officer reports that the work was easy. Widespread illegal enhancements of rent, to which a reference was made last year, were, however, encountered. Such, however, was the spirit of the tenantry and the power of the landlord that the former were afraid and unwilling to oppose the latter. Even in the objection camps many of them, whose rents had been cut down to those legally payable, petitioned to have the illegal enhancements recorded. In one estate, where many tenants had been previously ruined in a fight with the landlord over the rent-question, a compromise was subsequently arranged on the basis of a reduction of one anna in the rupee with an agreement not to seek enhancement for fifteen years and a remission of half the arrears.

40. **Relations between landlords and tenants.**—The subservient condition of the tenants and the power of the landlords are also remarkable features in Naogoan subdivision. That this state of affairs is not always prejudicial to the tenants is illustrated by the example given in the words of the Settlement Officer below, of the poet, Dr. Rabindra Nath Tagore, who possesses practical ideas regarding management. The Dubalhati estate is an exception to the rule of the subservient tenant. In this estate where there has been a previous record-of-rights they have submitted to no unlawful exactions. This is no doubt partially the reason for their independence as well as the fact that the tenants have found a leader.

I cannot do better than quote here from the Settlement Officer's report.

In this area the most remarkable feature of the relations between landlords and tenants is the submission of the tenants and the respect they retain for their landlords. Unjust exactions in rent and *abwabs* are the rule, but cases where the tenants resist these are practically unknown. The tenants refuse to fight. They know the power of the zamindars' agents and are ignorant or afraid of the law which exists for their protection. Everywhere the landlords exercise, personally, or through their managers and naibs, a large civil and criminal jurisdiction. As a rule, where the landlords' private interests are not affected, decisions are roughly just and are seldom disputed. Where these powers are wielded by the unscrupulous naib of an absentee landlord the state of the tenants is unhappy. A very favourable example of estate government is shown in the property of the poet, Dr. Rabindra Nath Tagore. The proprietors brook no rivals. Subinfeudation within the estate is forbidden; raiyats are not allowed to sublet on pain of ejectment. There are three divisions of the estate—each under a sub-manager with a staff of tahsildars whose accounts are strictly supervised. Half of the *dakhilas* are checked by an officer of the head office. Employés are expected to deal fairly with the raiyats and unpopularity earns dismissal. Registration of transfer is granted on a fixed fee but is refused in the case of an undesirable transferee. Remissions of rent are granted when inability to pay is proved. In 1312 it is said that the amount remitted was Rs. 57,595. There are lower primary schools in each division and at Patisar, the centre of management, there are a high English school with 250 students and a charitable dispensary. These are maintained out of a fund to which the estate contributes annually Rs. 1,250, and the raiyats 6 pies per rupee in their rent. There is an annual grant of Rs. 240 for the relief of cripples and the blind. An agricultural bank advances loans to raiyats at 12 per cent. per annum. The depositors are chiefly Calcutta friends of the poet who get interest at 7 per cent. The bank has about Rs. 90,000 invested in loans. The worst offenders are petty landlords, especially those who are professional money-lenders. Such landlords have no conception of the duties of a landed proprietor to his tenants and they stoop to all sorts of petty knavery in order to increase their wealth. *Salami* is taken from two different tenants for the same land; every artifice is employed to dispossess a raiyat in order to let the land on half-produce rent. A widow, a minor or female heir has a doubtful chance of succeeding to the raiyati holding. A distant collateral is never recognized.

The absentee landlord, the Settlement Officer reports, is one of the main causes of oppression. He leaves his reputation in the hands of unscrupulous and oppressive agents, who make the master's name hateful in the ears of the tenants. The total *abwabs* vary from 4 annas to 9 annas per rupee of rent. In the large estates where regular exactions are made of fixed amounts and at fixed times these exactions are less harassing than those which belong to the class of pure and simple extortion. In the latter class I would put the worthy gentleman who, having a house to build, has collected Rs. 16,000 towards it from his tenants; the far-seeing gentleman who, having to fight his tenants in the Settlement courts, tried to collect As. 6-9 per rupee of rent from them beforehand to pay his costs; the needy soul, with a son in England, who makes regular collections for his education, and the enlightened estate which extorted Rs. 16,000 out of the tenants of a newly-purchased property by the threat of a general enhancement of rent.

41. **General.**—Cess revaluation was started in the attestation camps during the year. The Settlement Officer has been handicapped by the slow progress made in the construction of the Settlement Office buildings at Rajshahi, which have only recently been completed. As for his own quarters, it is not expected that they will be ready before next March. More buildings are required and the necessary arrangements are being made.

The staff worked well and cheerfully throughout the year under trying conditions.

Jalpaiguri.

	Programme according to the last revised estimate.	Actual programme.	Performance
	Sq. miles.	Sq. miles.	Sq. miles.
Final copy	846	1,450	1,450
Recovery	705	705	595
		Cases.	Cases.
Case-work Sec. 105		4,156	3,325
„ Sec. 106		1,124	347

42. Mr. J. A. Milligan, I.C.S., was in charge throughout the year as a wholetime officer from the afternoon of the 15th October 1913 when he took over charge from Babu Jnanendra Nath Roy, Deputy Collector, who had been acting during his absence on privilege leave.

43. The difference between the actual programme under final copy and that shown in the revised estimate is due mainly to the fact that printing, accounting for 344 square miles as indicated in paragraph 37 of last year's report, had not started, pending the completion of the rent-settlement proceedings, whilst the remaining 260 square miles were the arrears of copying which accumulated for the reasons given in paragraph 34 of the same report.

The actual programme for the year comprised the disposal of the land-revenue settlement work, copying and printing and final publication of the records, recovery of costs in a portion of the permanently-settled area, case-work, and the completion of final office work, such as statistics and maps. This programme has been practically completed with the exception of some 110 square miles for recovery and a few trifling items. With the completion of recovery, case-work and the final report the settlement ought to come to a finish next September.

44. There has been a substantial increase in the cost of this settlement over that estimated in the last estimate submitted to Government. The whole of this matter has been separately surveyed in the letter submitting the revised budget for this settlement to Government for the present financial year, and it is probably unnecessary to go into detail here except to express my regret that it should have been necessary to submit it. It should be noted that the Settlement Officer anticipates that no fresh recovery proposals will be necessary, but that the excess expenditure will be covered by excess realizations.

In view, however, of the Government orders that the cost-rates should be compared with the standard-rates, the following figures are noted :—

	During the year.	Up to date.	Standard.
	Rs.	Rs.	Rs.
Janch	52	52	20
Final records ...	30	28	54 *
			36 †
Recovery	12	13	20
Statistics and 16" maps...	16	29	16

The figures for the year show a satisfactory economy on the standard rate in two items. That in final records is due to the fact that for 1,046 square miles the record was copied by hand and also to the fact that khatians averaged only 123 per square mile. The reason for the large janch rate has been repeatedly explained.

45. The rent settlement of the Government estates, with the exception of 7 square miles of a Sonthal colony and some disputed portions of the boundary between Jalpaiguri and Cooch Behar which had to be relaid, has been completed up to, and including, the stage of final publication. This boundary was relaid, in accordance with Government orders, by Mr. Hart during the first part of the year, and the confirmation of the rent-roll has been kept pending the acceptance by the Maharaja of Cooch Behar and Government of

* Printing.
† Copying.

the boundary. The net result of these operations is an increase of Government revenue by 56 per cent. from Rs. 2,41,827 to Rs. 3,77,963.

46. The printing of the records for the 1,040 square miles of the Government area and the copying of the 997 square miles of the permanently-settled area, with the exception of the two small areas mentioned in the preceding paragraph, have been completed, the former at Faridpur and the latter at Barisal. The copying of the records was attended by much difficulty. Errors were found in the original record which demanded a close scrutiny and sometimes a re-jamch, whilst a small-pox and cholera epidemic at Barisal delayed matters. The Settlement Officer had to take drastic measures and it was only by dint of employing a large number of men that he could obtain any progress. He was much handicapped by the necessity of having the copying office at Barisal where he could not, except by spasmodic visits, exercise the necessary control. This work is now, however, practically finished and what little remains will be done at Jalpaiguri. Mapping work, except for 100 square miles, is also complete.

47. Out of a total demand for collection during the year of Rs. 3,30,333 from the area for which recovery was actually undertaken, Rs. 2,83,075 was recovered. The balance is ascribed by the Settlement Officer to the failure to find *adhiars* who had been recorded as tenants, and to the necessity of moving two temporary kanungos, who had been lent him for recovery, to the training class for kanungos in August.

48. The last important item of work is case-work: 3,325 cases under section 105 and 347 under section 106 were disposed of during the year by three officers. There have been only 12 appeals under section 105 and 56 under section 106. In 27 of the 32 cases heard the decisions of the Settlement Department have been upheld.

49. The statistics show that the landlords have, under section 105, done by no means badly, as the raiyats' rents have been increased by 33 per cent., due to rise in prices, whilst the tenure-holders' rents have been increased by 28 per cent. The result of the cess revalution by the Settlement Department discloses an increase of 40 per cent. on the present cess of the area which has come under revaluation.

50. The Settlement Officer has made substantial progress in the collection of materials for, and in the preliminary spadework of, his final report. The progress made in all branches during the year by the Settlement Officer is distinctly satisfactory.

Midnapore.

	Programme. Sq. miles.	Performance. Sq. miles
For the year—		
Field-work	... 1,087	854
Attestation	... 1,065	1,065
Janch	... 1,065	1,072
Up to date—		
Field-work	... 3,112	2,879*
Attestation	... 2,021	2,021*
Janch	... 1,118	1,125*

51. Mr. A. K. Jameson, I.C.S., was in charge throughout the year, except from the 16th April to 16th June when he was on privilege leave, when Messrs. Quinlan and Davies successively acted for him.

52. The comparison between the original programme and performance shows an apparent arrear of 233 square miles in field-work. This is sufficiently explained by the fact that under the orders of Government 154 square miles, which had been affected by the serious floods during the previous rains, were excluded from the operations for the year, whilst sheets aggregating 78 square miles were not received from the Bengal Drawing Office. Revision work was undertaken in 47 square miles in the Pataspur pargana. The arrears in janch are amply explained by the fact—explained last year—that the difficulties of the attestation area kept the camps out in the field till very late in the season, thus postponing janch till the end of that year. Thus

* Includes Pataspur Revision.

janch has practically started a full year in arrears. Moreover, it was decided that speed must give place to great care in view of the new class of difficulties encountered, the rawness of the staff, and the necessity of making certain formal changes in the record in order to facilitate its subsequent printing. The Settlement Officer reports: "But if progress has been slow the results are accurate and the janch is extremely thorough." This is very satisfactory, and, if little leeway has been made up, the outturn shows that a full year's normal programme has been completed. Printing was necessarily delayed by janch and more particularly by the fact that the Settlement Officer had to train a new staff. What has been done up to date is negligible, but when the staff gets into proper working order, this portion of his work ought to proceed automatically. Recovery proposals, it may be noted, have already been submitted to Government for orders. The Settlement Officer of Midnapore has now as heavy a burden of work to perform as any other Settlement Officer, and the results are very satisfactory. In many ways this is now the most interesting major operation in Bengal. The conditions vary from those found to exist in the most jungly tracts of Chota Nagpur to those found in Eastern Bengal with its complex system of coparcenary and subinfeudation.

53. **Expenditure.**—The influence which the number of plots found per square mile has on expenditure is strikingly illustrated by the cost-rates in this settlement.

The following table compares the cost-rates per square mile with those proposed as the standard rates in Mr. Jack's letter No. 120-532, dated the 16th March 1912.

	Standard rate.		Rate during the year.	Rate up to date.
	Rs.		Rs.	Rs.
Survey and Khanapuri ...	109 / 37	146	160	119
Preliminary office work ...	18		73	40
Bujharat ...	84	145	70	69
Attestation ...	61		9	8
Objections ...	25		30	30
Janch ...	20			
Total ...	354		342	266

(The above figures omit pension and leave contribution.)

The large figure of 160 during the year for survey and khanapuri against a standard of 146 in view of the cheaper agency of inspectors employed in Midnapore demands explanation. The details are as follows:—

	Salaries.	Kanungos.	Surveyors.	Inspectors and Clerks.	Menials.	T. A.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
For 1914-15 ...	25	11	Survey ... 51* / Khanapuri 36†	22	8	7	160
Standard ...	10	41	Survey ... 64‡ / Khanapuri 20§	2	6	3	146

The reason for this excess is to be found in the fact that 1,938 plots against a standard of 1,000 per square mile were found in the year under report. This would nearly double the time spent by the staff in the field and therefore in the case of that on fixed pay the cost of its maintenance. It did not affect the contract rate for survey, but for khanapuri it raised the rate

* At Rs. 8 per 100 acres. ‡ At Rs. 10 per 100 acres.
† At Re. 1-14 per 100 plots. § „ „ 2 per 100 plots.

for amins who are paid by the number of plots khanapuried by over Rs. 17 per square mile (calculated on Midnapore rates). Some part of the excess under the head "Salaries" is to be attributed to the fact that the scattered nature of the area, after exclusion of the permanently-settled flooded areas, rendered the employment of further officers necessary, whereas ordinarily ten would have sufficed.

Preliminary office work was similarly affected by the increase in the number of plots during the year, but the main reason for the excess over the standard rate is due to the more elaborate check undertaken at this stage in Midnapore as a set-off against the lack of a field-to-field bujharat. In view of the very careful janch of the record done in Midnapore the cost-rate for janch cannot be regarded as excessive or in any way extravagant. The cost-rates up to date need no comment beyond the remark that, as expected, in view of the non-employment of bujharat kanungos, they indicate on the whole a considerable saving on the standard cost-rates.

	During the year.	Standard.	Up to date.	Standard.
	Rs.	Rs.	Rs.	Rs.
Supervision ...	75,282	1,32,256	1,61,408	3,67,837
Contingencies, etc. ...	1,17,795	61,995	2,18,208	2,72,778

The apparent saving under the head "Supervision" is due in a great measure to the non-employment of bujharat kanungos, whose recess pay is debited to "Supervision." It is also due to economies at the outset of the settlement and to the fact that larger areas than the standard of 800 square miles are taken up annually. The excess under contingencies during the year is due mainly to the purchase of press and press materials at a cost of Rs. 20,332 and the erection of buildings, principally for the press, at a cost of Rs. 24,479.

54. **Field-work.**—The third block of the district in the alluvial area in the south-west of the district came under field-work. The block is interspersed with scattered previously-surveyed areas and the omitted flooded area. There was little difficulty regarding actual survey. An improvement which was effected was the adoption of the plan, which has worked satisfactorily in Eastern Bengal, of paying amins at Rs. 8 per 100 acres including all cooly charges. This has simplified accounts considerably and contented the amins.

55. Ninety boundary disputes were decided. The Settlement Officer reports that the village boundaries have altered remarkably little since the thak survey. A special examination of all discrepancies with that survey was made. During khanapuri the number of internal disputes averaged 21 to the square mile against 7 of the preceding year. This, however, is to some extent due to the large average number of plots per square mile. There were numerous disputes regarding the standard of measurement which varied from place to place and led to considerable trouble. After the disputes had been once settled the landlords who had hitherto been little interested in the matter suddenly woke up, and sometimes could produce undoubted evidence of their claim.

56. A large number of disputes related to rent-free claims. It is affirmed by the landlords that wholesale forgeries of sanads purporting to give rent-free grants are being made. Other disputes relate to the right to cut down trees. The disputes regarding trees did not, however, form such an important item as in the last year's area. Difficulties were also encountered in dealing with the numerous embankments under the charge of the Public Works Department. The Settlement Officer reports that that Department did not represent its case properly. Steps are being taken to have this rectified at attestation. In this area the tenures are simple and subinfeudation does not exist to any great extent. It is also reported that the rent throughout the greater part of the area has not been increased within living memory. In one part of the area an attempt has been made to defeat the Bengal Tenancy Act by giving out kabuliats to a cultivator,

as if to a contractor, for the supply of half the crop which is grown. Wholesale attempts were made to conceal the existence of produce-rent-paying tenants.

57. These remarks on the field-work would not be complete without a reference to the revision proceedings in Pataspur. So far the results appear to have been very successful and the cost-rate is quoted at Rs. 78 per square mile for survey and khanapuri against Rs. 160 of the ordinary area. This is mainly due to the excellence of the previous survey, to the ease with which old traverse stations have been found and to the fact that the previous settlement is comparatively recent (1893-98). It cannot be taken as any evidence of the cost of ordinary revision settlements.

58. **Attestation.**—The attestation of the second block was taken up and completed. Comprising, as it does, both jungle and alluvial land, many interesting matters cropped up. In the jungle area disputes regarding jungle rights and trees were rife. In the Nayagram estate a claim, which had not even the merit of antiquity behind it, was made to the right to levy a cess on all the *mahua* trees in raiyati holdings in the pargana. In support thereof a judgment was produced in which it had been found that the raiyats had made a verbal agreement to this effect when the *dahi* lands were first assessed to rent some fourteen years ago, and that, three years before the cess was imposed. The Settlement Officer, apart from the legal grounds, found the evidence of the verbal agreement too flimsy and could not give effect to this judgment except in the case of the persons on whom it was binding. Another prevalent dispute in this pargana was regarding the length of the measurement pole. It was ultimately found that this varied from village to village according to the length of the original Mandal's forearm and hand—an eminently unsatisfactory state of affairs.

59. The disputes in Belyabera regarding rights in trees and the division of holdings into produce and rent-paying portions were satisfactorily concluded by the proprietor, Rai Kristo Chandra Das Praharaj Bahadur, withdrawing his claims. In Bahadurpur the state of affairs which exists in Silda was found on a smaller scale. The Mandals' rents had been recently increased, and this in its turn had led to illegal enhancements of the raiyati rents. In Narayangarh there were numerous rent-free claims which caused some difficulty. In Narayanchar and in some of the Danton estates some difficulty was also experienced in dealing with co-sharer landlords, and it exercised the ingenuity of the Attestation Officers considerably to deal with complex ramifications of tenancies which coincide with nothing physically. In the jungle areas survivals of the system of holding homestead and *dahi* lands rent-free were found. One landlord is being prosecuted on a charge of forgery, the immediate cause being the production of papers before the Attestation Officer, which were considered forgeries. The formal work of attestation was to some extent complicated by the introduction of new methods from Eastern Bengal, of which the most important are the preparation of the *sthit*, and the device of having only one form of khatian for all classes of landlords and tenants, instead of a khewat and khatian. The *sthit* preparation was subsequently postponed to janch, but even then the last camp remained out till September. In the jungle area the classification was re-checked by kanungos.

60. Printing was started during the year under report with a thorough extra check of the record after it had passed through the printing press. The work is done on the lines in force in Faridpur. The staff is under training, and the work is not sufficiently far advanced to quote any statistics.

61. During the year the operation of section 112 in the Silda pargana was sanctioned by the Government of India and preliminary measures were taken for obtaining all the information necessary for the settlement of rents in that pargana.

62. In the attestation camps and at janch a certain amount of cess revaluation under chapter IIA of the Cess Act was done. It has now been decided by Government on account of the difficulties of the law, as drafted in that chapter, to stop cess revaluation by the Settlement Department in the remaining attestation areas in Midnapore, and in order that the District Board may have the benefit of the increase of rents expected under

section 105 that the District Officer should undertake the cess revaluation of the remaining area. Some chaukidari resumption proceedings were undertaken in the jungle areas.

63. **Birbhum—Rampur Hat.**—Mr. P. M. Robertson, Deputy Collector, was in charge throughout the year, except during a period of three months at the commencement of the year when he was on privilege leave on account of ill-health. At the commencement of the year the Board's final orders on the table of rates of rent for the Santhal villages under section 112 of the Bengal Tenancy Act were received. Subsequently the rent-roll was prepared but the orders of the Government of India on that rent-roll, against which there have been no appeals, were not received till after the close of the year. Some small amount of case-work has been done and recovery completed. In consequence of the necessity of waiting for orders the Settlement Officer was also employed in the general line from the 20th August to the 30th September 1914, and the office was practically closed during his absence on leave. With the final publication of the rent-roll the proceedings in this area will be completed. One point is worthy of note and that is that the landlords have been found to be entering in their rent-receipts (mainly in the case of those granted to Santhals) the old areas and rents, which have been found to be illegal, instead of the true areas and rents as contained in the finally-published records. The Collector has, however, it is reported, taken drastic action under section 58 (4) of the Bengal Tenancy Act and heavily fined the landlords.

General.

64. The following statement compares the intensity of inspection of survey and khanapuri in the different district operations :—

District.	*Partal* of Cadastral Survey. *Number of linear miles of* partal *in each square mile.*			Inspection of khanapuri.
	Personal.		Independent.	Number of plots per centum inspected.
	By whole staff.	By officers only.		
Midnapore ...	3·53	·50	1·45	15
Dacca ...	3·62	·26	Not in force	7
Mymensingh ...	2·55	·13	Ditto	Not counted.
Rajshahi ...	3·95	·18	Ditto	8

It is to be remembered that the inspection of khanapuri is not of much importance in the Eastern Bengal districts, as the kanungo afterwards visits every field. Inspection was adequate in all settlements.

Minor Operations.

65. **Burdwan.**—There were 21 scattered private estates covering an area of 25 square miles under settlement in this district during the year under a Special Settlement Officer. In addition to this work, the survey and settlement of the Grand Trunk Road were ordered late in the field season. In the later stages performance fell somewhat short of the programme. This was due to the sudden illness of the late Settlement Officer at a time when it was impossible to replace him by a suitable officer. For the same reason it was decided to postpone the survey of the Grand Trunk Road to the present field season. His successor, Babu Satamanyu Mukharji, has, however, subsequently made good progress. The remarkable feature of this settlement is the large number of rent-free claims. No less than 552 khatians out of 2,639 were recorded as rent-free. A large number of statutory mukarari claims was also made, but it does not appear that many of these claims were allowed. The tenants are reported to be well able to fight every and any claim of the landlord, whether just or unjust.

66. **Bankura.**—One small patni estate of some four square miles was under settlement during the year. The only noteworthy point in this survey is that some of the villages in the patni under settlement cannot be traced. The property appears to have been purchased as a speculation. Sufficient progress was not made during the year owing to a dearth of amins. Five chars were surveyed in the rivers Damodar and Bodai.

67. **Hooghly.**—The programme for the year consisted of (1) the winding-up of the operations for which the post of Special Settlement Officer was created, the disposal of the remainder of the case-work and completion of recovery, (2) new work in six petty private estates and three Government estates with an area of 4½ square miles, and (3) the settlement under the Regulations of two Government chars. The work has been satisfactorily completed except for final office work in the three Government estates and some recovery work in the flood-affected area in which it had been suspended in the previous year. In May, owing to the state of the work, the Special Settlement Officer, Babu Kshitish Chandra Haldar, reverted to the general line, but continued settlement work along with his general duties. In the Government estates the tenants at first demanded to have their holdings surveyed according to the *chithas* and map prepared at the last settlement, but gave in when it was pointed out to them that the map should follow present possession. At attestation the difficulties regarding rent-free holdings and *chak* comparison were again noticeable, but the tenants as a body took little interest in the proceedings at that stage. Under section 105 the landlords obtained an average enhancement of 20 per cent. on the rent of holdings previously assessed to rent.

68. **24-Parganas.**—There was a small programme consisting of operations in different stages in ten estates. Fieldwork and attestation covered 4½ square miles, but attestation could not be concluded as the greater portion of the area was under water till May and field-work could not be started till then. This area is comprised mainly of *bheris* or rearing tanks for fish, pisciculture rather than agriculture land. Case-work monopolised most of the time of the officer-in-charge. The landlords have, on the average, obtained an increase of 25 per cent. on their original rents. The disputes between the Port Canning Company and their tenants were satisfactorily compromised.

69. **Nadia.**—The Nadia programme was a very slight one, though 29 estates were under settlement of which 26 were Government or temporarily-settled estates. No new estates will now come under settlement pending the district operations. Except for final publication, the programme was practically completed, though a few odd matters remain for disposal. As in Murshidabad, one peculiarity is the claim of non-cultivating tenants, who have numerous cultivators under them, to a raiyati status, a claim which, I regret to say, has not received in all cases the scrutiny it ought to have done. Another peculiarity is the prevalence of the *utbandi* system, but here it is reported that, when it was found that the *utbandi* character had been lost, viz., that the tenant continued to pay the same amount of rent though the area under cultivation varied, the tenant was recorded as an ordinary tenant.

70. **Murshidabad.**—Previous to this year what operations there were had been in the charge of officers of the general line with no recent experience of settlement work. An examination of the work demonstrated the necessity of employing an officer more acquainted with up-to-date methods. Accordingly Babu Abinash Chandra Banarji was appointed and later in the year, on the 27th April, owing to the scattered nature and size of the area which now came to be dealt with, he was appointed a special officer. The operations included 11 resumed, 6 wards' and 3 zamindari estates. During the year some 14 square miles of survey and 24 of khanapuri were completed in accordance with the programme, but attestation is behindhand. This is partially accounted for by the fact that the officer had to contend with many difficulties in the Government and temporarily-settled estates, where work was complicated by the claims of large non-cultivating holders of land to a raiyati status and by the suppression, recently discovered, of the actual cultivators.

Good work has been done during the year towards placing the settlement operations on a satisfactory basis.

71. **Jessore.**—Work was in progress in five private estates and one temporarily-settled estate in an area of six square miles. In the case of two estates the final report has been submitted; in two others it is about to be submitted, whilst case-work is pending in the fifth estate. In the temporarily-settled estate the rent-roll has been finally framed. There is little to remark except that, in common with other minor settlements in the charge of officers of the ordinary line, and despite repeated remarks on the subject, the number of under-raiyats is absolutely disproportionate to that of raiyats. This will, however, come under examination again during the District Settlement.

72. **Jessore-Khulna (Mokimpore).**—Babu Akshay Kumar Mukharji was in charge throughout the year. The programme for the year was the completion of jamb and final publication of the records in Khulna, which were completed, and the completion of case-work in the Jessore portion of the area. Considerable time was allowed to the manager of the estate to come to terms with the tenants regarding rents and eventually an arrangement was come to, which practically confirmed that proposed by the Collector, by the intervention of the Board of Revenue in its capacity as the Court of Wards. By this order, which specifically refers only to action to be taken by the estate, the legal powers and discretion of the Settlement Officer have been in no way interfered with. Case-work is now being undertaken.

73. **Khulna.**—The programme for the year was very slight and comprised the completion of case-work in two estates, the disposal of objections and case-work in a third, and in two estates (one under the Regulations) aggregating in area over a third of a square mile, operations from survey onwards. The disposal of work has been prompt. Only the final report in one estate and case-work in another are pending.

74. **Bakarganj—Revision of Land Revenue.**—There were in all 62 Government or temporarily-settled estates with an area of 95 square miles under settlement for the purpose of settling land revenue during the year under a Special Officer, Babu Ramesh Chandra Sen, Sub-Deputy Collector. These estates are at different stages of work. The most important is the Government estate of Tushkhali. In respect of the small estates the district settlement survey was revised and brought up to date by a regular field-to-field bujharat by kanungos. But in the case of 16 villages in Tushkhali, which were not dealt with in the district settlement, and in which very many changes were necessary and in 6 char estates whose character had totally changed by alluvial action, a new survey was made and a fresh khanapuri record prepared. The programme was a large one, but the outturn kept pace with or exceeded it except in the case of final publication and actual settlement of rents. The arrears are mainly due to two estates—Char Chandraprasad and Char Annadaprasad. In the one final publication was left pending the decision of certain technical legal points, and in the other the records had to be revised as, subsequent to their preparation, the tenants, fearful of being ejected, had erected houses and marked boundaries to their fields in order to carry out the terms of their kabuliyats. The officer in charge did his own theodolite survey where necessary, but some difficulty was experienced in obtaining survey instruments and surveyors. In Tushkhali the tenants gave considerable trouble. Where the old settlement area differed from the present, the tenants insisted that the previous area was right and much time was spent over remeasurements. This is a satisfactory testimony to the light in which settlement records are held. I believe they would have much rather changed the whole configuration of the land than the map. In the area in which the rent-roll has been confirmed, the rent has increased from Rs. 4,359 to Rs. 5,030 or by 15·39 per cent. Where the record has been finally published, the revenue has increased from Rs. 21,188 to Rs. 28,272 or by 33·76 per cent.

Diara.—The diara work in this district has been completed with the exception of Aila-Fuljuri, Ramna-Bamna and a few other chars in regard to which objections are pending. The first two were pending for certain comparative maps containing what is called Hodges' survey line. It now appears that this cannot be accurately plotted. Altogether 590 proceedings have been

taken up numbering 290 estates on 81 rivers. The total diara area is 44 square miles, and the proposed revenue Rs. 45,000. One hundred and eighty-three estates have been completed with a revenue of Rs. 36,795, while the reports on 51 estates, with a revenue of Rs. 3,665, were ready for submission to the Board at the close of the year. The cases were contested with great vigour even in the teeth of Privy Council rulings and at one time an attack was made on the whole method of diara survey.

75. **Faridpur.**—The programme for minor settlements in Faridpur comprised the completion in 19 estates and the commencement in 13 estates of settlements for the purpose of settling land revenue. In 14 estates the settlement was completed, but in 3 estates it is pending for confirmation, while in 2 other small estates it is incomplete. The finally-published map and record of the district settlement were revised and brought up to date except in the case of one estate where fluvial action rendered that map and record useless. The consequent necessity for a new survey and record delayed matters considerably. Nevertheless, as out of a total of 17½ square miles the rent-roll has been published in 16, the result is satisfactory. The operations were under the control of the District Settlement Officer. A large increase of revenue is expected chiefly from large accretions.

76. **Noakhali.**—The programme in Noakhali embraced operations at different stages in 30 Government or temporarily-settled estates aggregating 118 square miles and in 2 private estates aggregating 38 square miles. The principal private estate under settlement is that of Dandra (33 square miles). For a minor operation the programme was considerably the most extensive in the Province, and throughout the greater portion of the year two officers were employed. Maulvi Muhammad Amjad Ali, Sub-Deputy Collector, was in charge till the 15th January 1914 when he was succeeded by Maulvi Muhammad Mahmud.

What little cadastral survey had to be done was finished, whilst bujharat is only pending in the newly-formed char in Char Bayley. The main programme consisted of the attestation of 92 square miles comprising 32,880 interests of which the Dandra estate alone contained 25,489. This was completed (84 square miles) except for the newly-formed char already mentioned. Objections are, however, pending. The peculiarities of Dandra are subinfeudation, benami interests, and the advantage taken of the law relating to the avoidance of unprotected encumbrances. Cess, it is reported, is generally realized from raiyats at one anna in the rupee, but the settlement operations have now taught the raiyats the legal amount payable.

The programme comprised also the settlement of fair rents in twelve estates. In eight it was completed, whilst in four it is pending for special reasons. In six estates the revision of land revenue has been completed. The result has been an increase from Rs. 5,174 to Rs. 15,959, at first sight a large increase, but over 130 per cent. of the increase is due to increase of area and the remainder to rise in prices. In respect of actual rent and revenue settlement performance is behind the programme. This is due to the large amount of work which had to be done in Dandra, where 770 interests to the square mile were encountered instead of 250. For the same reason the cost-rate of attestation rose to Rs. 102 a square mile. In other respects, the cost-rates seem fair.

Towards the end of the year the operations came under the control of the District Settlement Officer.

77. **Tippera.**—The programme was very slight and consisted of the completion of work in 6 estates aggregating not quite three square miles in all. With the exception of a small estate of 50 acres, all records have been finally published. The work which is now pending is the disposal of certain section-105 cases.

78. **Dinajpur.**—No work was done during the year except recovery of costs and the closing of the settlement operations in the Jhargaon estate.

PART II.

79. **General.**—During the year the question of the principles on which recovery should be effected under section 114 of the Bengal Tenancy Act

in cases where an application for settlement is made by a private party, arose and was settled. The guiding principle adopted was that there must be some substantial ground for recovery of costs from persons other than the applicant. Other matters of importance, with which the Department was concerned, came under detailed examination during the year, such as the proposed legislation on transferability of occupancy rights, the record of produce-rent-paying tenancies and the principles on which commutation should be effected. Orders on the second and third questions have been received from Government. The question of the revision of the form of the khatian and the method of its preparation was discussed at a conference of Settlement Officers and is now before Government. Orders were received from the Government of India on the proposal to raise the pay of the kanungo staff referred to in paragraph 94 of last year's report. The maximum pay has now been raised to Rs. 200 a month. Proposals are under submission to Government to give effect to the scheme gradually with effect from the 1st March next, but it is impossible without a complete disregard for future prospects and present conditions to give effect to the scheme *in toto* at once. In paragraph 89 a list of appointments obtained during the year by kanungos is given. Rules for the recruitment and training of kanungos and also of amins were approved by Government during the year. It was decided by Government with the concurrence of the Surveyor-General that technical advisers could be appointed as such from officers outside the ranks of the Survey Department if certified as fit by the *Director* of Surveys. The question of their powers and duties was also decided.

The method of survey on the *bargadagi* system in all new waste and char lands was referred for the opinion of the District Officers of the Province on the suggestion of Government. This is a simple system of dividing the land up into mathematical equal squares demarcated at intervals by numbered posts linked up with a permanent survey mark, and surveying accordingly. The merits claimed for it are that a tenant can immediately identify his land after inundation and that numerous riots and disputes can be avoided. The adoption of this plan, which was invented by my predecessor Mr. J. C. Jack, has met with universal approval in the Province, and it can be confidently recommended for adoption by private landlords, as one which will save both themselves and their tenants, and incidentally Government, a good deal of trouble. The only material expense is the initial expense on the numbered iron posts.

80. **Provincial Programme.**—The Provincial programme for the settlement of the remaining districts in the Province was settled by Government and the estimate for the same came under consideration. It was also decided that the remaining *diara* area in the main rivers of the Province should be taken up as quickly as possible in connection with the main programme. As the first fruits of this programme, the settlement of the districts of Tippera and Noakhali, a joint operation, and the traverse survey of the districts of Jessore and Bankura start this cold weather. The programme, though it provides only for four parties throughout, that is to say, one district will not be taken up until the field staff in another is available for transfer to it, is really an expanding one ; inasmuch as after field-work and attestation considerable time has to be devoted to printing and case-work. In a few years no less than eleven major settlements against a present number of seven will be in progress at one time in different parts of the Province, a consideration which has raised the question of making early provision for the number of the superior staff required and which has in one direction been solved by the decision to appoint two Assistant Civilians to each major settlement. In view of the programme no new minor operations will be taken up in districts which are likely to be taken up soon, such as Pabna, Bogra, Nadia, Khulna and Birbhum, whilst it is doubtful whether any more should be taken up in Burdwan or Rangpur. The other districts are too far ahead to make any definite statement regarding them at present advisable.

81. **Amalgamation of Settlement Procedure.**—Draft rules under the Bengal Tenancy Act were published by Government during the year under review. A special officer was appointed by Government to revise the

Survey and Settlement Manuals, but the work has been delayed owing to his deputation on other work. The case-work rules were, however, practically completed, as well as the account rules. The latter have been referred to the Accountant-General for opinion. So far as major settlements are concerned, it has been practically decided to adopt in the main Eastern Bengal methods. In minor operations it has been found most conducive to efficiency to allow the officers for the present to continue on the lines to which they are accustomed, but an attempt is being made now to introduce the field-to-field *bujharat* system by kanungos in such operations where practicable.

82. **Accounts.**—The question of accounts and the necessary forms in which they should be prepared was one of importance during the year under review. So far as major settlements are concerned, the forms of original estimates, programmes and budgets and the manner in which expenditure should be examined have now been settled by Government. It is to be hoped that when the system gets into working order, the examination of previous expenditure will cause less trouble than it does now. At present it can only be represented mathematically by a curve of multitudinous periodicity.

The question of economies continued to receive the unremitting attention of the Settlement Department. It is unlikely that any big change of importance can be effected in this respect, and it is only by dint of looking for and discovering methods of obtaining small economies in each detail of settlement without curtailing necessary expenditure that any appreciable progress can be made in this direction. A reference has already been made in the paragraphs dealing with major settlements to some of these. But the question has come under systematic examination and a report will be submitted to Government on the whole question. On the other hand, expenditure has increased on account of the necessity of increasing the pay of the kanungos and the *decision* that two Assistant Civilian Officers will be attached to each settlement so long as there are field work and attestation going on; both measures were, however, completely justified.

As regards minor operations, it had been decided by Government that for different estates in each district separate accounts should not be kept, but that the apportionment of the cost to each estate should be made at the end of the year. It is sufficiently obvious that even with this simplification it is a matter of some difficulty to distribute the different charges, contingencies, supplies and services, as well as job and contract, between different estates. They are usually at entirely different stages and a simple mathematical apportionment by areas is impossible. Two registers were accordingly devised, based on those already in force and connecting up with the monthly and annual returns to meet the difficulty.

83. **Maintenance of Boundary Marks.**—The most important order passed during the year in connection with the maintenance of boundary marks was the extension of rule 28A of West Bengal Settlement Manual of 1908 to the districts of Eastern Bengal. This provides for the constitution of a *pro-forma* fund for each district by advance recoveries under section 114 (*2*) of the Bengal Tenancy Act for the future maintenance of boundary marks in areas of private and wards' estates dealt with under that Act. Arrangements are being made accordingly for advance recoveries in operations in the districts of Eastern Bengal. In the Presidency and Burdwan Divisions the total of advance recoveries up to the end of the financial year 1913-14 was Rs. 3,566, of which Rs. 255 were spent in the previous years, and Rs. 300 were spent in 1913-14, leaving an available balance of Rs. 3,011 at its close. The estimate sanctioned for expenditure during 1914-15 (financial) is Rs. 363.

Appendix X shows that, out of a total of 28,677 pillars placed in charge of the District Officers, 17,683. *i.e.*, 61 per cent., were inspected, with the result that 1,810, or 10 per cent. of the number, were found missing and 563, or 3 per cent., damaged. In most cases the District Officers have taken prompt measures to restore the missing pillars and put in order the damaged ones. It cannot at the same time be overlooked that in some districts the matter has not received that amount of attention from the local officers as it really requires.

84. **Jurisdiction.**—The following three important notifications defining the boundaries of certain revenue-areas were issued during the year under report—

(1) declaring, with a proviso, that the main stream of the Gorai-Madhumati formed the western boundary of the Faridpur district,

(2) defining the boundary between the Munshiganj subdivision of the Dacca district and the Tangail subdivision of the Mymensingh district, and

(3) defining the boundaries of the Munshiganj and Manikganj subdivisions of the Dacca district.

Besides the above, twenty-three proposals for formation of police-stations or independent investigating centres were examined by this Department. The question of the revision of Mr. Chandra's thana maps is under the consideration of Government.

85. **Utilization of Settlement Records.**—The reports of the local officers indicate a rapidly-growing appreciation of the value of records-of-rights in all disputes, whether in the Civil, Criminal or Revenue Courts, relating to land. It is remarkable that in Bakarganj no less than 17,355 applications were received for copies of records-of-rights and connected papers. The Deputy Commissioner of Jalpaiguri reports that the settlement records were particularly useful in deciding cases under sections 107 and 145, Criminal Procedure Code, and sections 379 and 447, Indian Penal Code. Settlement records were largely used in land acquisition and cess revaluation cases, while Registration Officers are reported to have been careful to insist upon the mention of the number of plots according to the record in registered documents. There is a growing tendency in the Civil Courts to compel litigants to refer to the record in their plaints, etc.

86. **Final Reports.**—The printing of the Bakarganj Final Report has reached the stage of final proof and its publication is expected shortly. The Final Report of the Survey and Settlement of certain Government and temporarily-settled estates and zamindari estates, in the district of Hooghly, was submitted to Government during the year. No other Final Report of any importance was received.

87. **Training of Junior Officers.**—Eight Civilians, eight Deputy Collectors, three Sub-Deputy Collectors and seven Assistant Superintendents of Police were given a training in various stages of Survey and Settlement work. As in previous years, they were employed on actual work in the field, and for this purpose the central training camp was located in the interior of the Mymensingh district under the supervision of the Settlement Officer of Mymensingh. As already stated in my report submitted to Government on the result of the training of these officers, the manner in which the training was conducted was highly satisfactory, and the officers derived considerable benefit therefrom. The Director of Surveys gave certain useful lectures during the period of training and the question of the continuance of this practice is under consideration.

As proposed in my last year's report, the class for the training of Sub-Inspectors of Police in Survey and Settlement work was again opened at Dacca during the year under report under the supervision of the Settlement Officer. Altogether twenty-five sub-inspectors were deputed for training by the Police Department. The result has apparently been very satisfactory, and the Inspector-General expressed his appreciation of the usefulness of the training for police purposes. A larger number of police sub-inspectors has accordingly been deputed for training this year. It may be noted that the training of the sub-inspectors extends only up to the completion of the *bupharat* stage.

With a view to giving the minor wards some training in Survey and Settlement work before their estates are released by the Court of Wards, two of them were, as an experiment, sent by the Board of Revenue for such training. They were placed under the Settlement Officer of Mymensingh, who trained them along with the officers deputed to the training camp under him. The experiment has proved a success so far as it has gone.

88. **Training of Munsifs.**—All the seven munsifs who had been deputed in the previous year for Survey and Settlement training reverted to the general line during the year after completion of the term of their deputation, and the services of eight new munsifs were placed at the disposal of the Settlement Department in the beginning of the field season of 1913-14. Of the seven munsifs who reverted, two were deputed to Dacca, two to Mymensingh, two to Midnapore and one to Rajshahi. Generally speaking, the training proved a success, and, as a matter of fact, the munsifs were placed in charge of circles in various stages of the work. All of them have undoubtedly gained useful experience of Survey and Settlement work, and a very good opportunity has been afforded them of obtaining not only a full insight into the various stages of the preparation of the record but also a direct knowledge of the manner in which the Tenancy laws really work amongst the people. This will materially add to their efficiency as Judicial Officers in dealing with cases of landlord and tenants as well as with the record-of-rights.

89. **Training of Kanungos.**—Of the twenty-four candidates (including six of the Khas Mahal Department) trained at Dacca for appointment as settlement kanungos during the closing period of the previous settlement year, 17 were provided with appointments. A training class for candidates for kanungoships was also opened in August during the year under report under the supervision of the Settlement Officer of Dacca. Twenty-three of the selected candidates underwent the full course and appeared at the final examination. Twenty-two of them have been provided with appointments.

90. **Promotions and Prospects.**—During the year under report one Sub-Deputy Collector was promoted to the rank of a Deputy Collector. Four outsider Assistant Settlement Officers were appointed Sub-Deputy Collectors, one was appointed as a Deputy Superintendent of Police, and another has obtained a permanent appointment in Maurbhanj. Of the kanungos, three obtained permanent appointments under Government, whilst one other was appointed as a Sub-Deputy Collector by the Assam Administration and another by this Government.

91. **Tours.**—I was on tour regularly during the year. All the major settlements, except Jalpaiguri, were visited at least twice. Jalpaiguri, where only recovery operations were being carried out, was visited once and Midnapore was visited four times—thrice during the field season and once during the recess. Out of the thirteen districts in which minor operations were in progress, one district was visited thrice, seven were visited twice and five were visited once during the year under report.

92. **Settlement Staff.**—The Settlement Staff in the Province consisted of 13 Civilians, 32 Deputy Collectors, 15 Munsifs, 49 Sub-Deputy Collectors, 12 "outsider" Assistant Settlement Officers, and 216 Kanungos including 21 Revenue Officers. Mr. Sachse organised with success the training camp for junior officers and maintained his reputation for energetic inspection. Both Mr. Milligan and Mr. Prance are to be congratulated on the marked success with which they have brought to a conclusion the last stages of Settlement work proper in Jalpaiguri and Faridpur, respectively. Mr. Ascoli organised his work with such ability that he is ahead of his programme in the earlier stages. A large measure of sympathy was brought by Mr. Nelson, who has organized the settlement successfully and with common sense, to bear on the troubles of the subservient tenants in Rajshahi. Mr. Jameson managed the large and diversified programme of Midnapore with keenness and success. The ability with which Mr. Thompson has performed his duties had marked him out as Settlement Officer, the post which he now holds. Mr. Davies' services during the year have been of signal value, and the departure of Messrs. Steele and Dash is much regretted by the Department. Of the officers specially in charge of minor operations, the most conspicuously successful officer during the year was Babu Rames Chandra Sen, Sub-Deputy Collector, whose work in the Tushkhali and other estates in Bakarganj has been admirable, whilst the quality of Babu Hara Kishore Biswas' work in Bakarganj as Diara Officer has been consistently first class. The quality of the work done by other officers in special charge of smaller operations (where the work done during the year demanded notice) has already been touched on in the paragraphs dealing with them.

From the rest of the staff who have, with very few exceptions, maintained the high standard demanded by the Settlement Department, it is exceedingly difficult to make a small selection of names of officers who should be mentioned for good work during the year. The names are given below :—

Deputy Collectors.

1. Babu Jnanendra Nath Ray.
2. Mr. A. J. W. Harris.
3. Maulvi Ataur Rahman.
4. Babu Bijay Bihari Mukharji.
5. Maulvi A. K. Kabiruddin Ahmed.
6. Babu Hriday Ranjan Sen.
7. Maulvi Moazumuddin Hossain.
8. Mr. B. A. Hollow.
9. Babu Sital Chandra Chatarji.
10. ,, Karali Charan Gangali.
11. ,, Surendra Nath Banarji.

Sub-Deputy Collectors.

12. Babu Kali Pada Maitra.
13. ,, Sudhir Chandra Ghose.
14. ,, Girish Chandra Das.
15. ,, Anath Bandhu Chatarji.
16. ,, Pramatha Nath Datta.
17. Maulvi Abdul Latif Choudhury.
18. ,, Shams-ur-Zoha Ahmed.
19. Babu Bhubaneswar Sanyal.

Technical Adviser.

20. Mr. I. Newton.

The above notes of officers would be incomplete without a reference to my Personal Assistant, Babu Mahendra Nath Gupta, Deputy Collector, whose assistance during the past year has been invaluable.

93. In conclusion, I desire to convey the thanks of the Department to the Director of Surveys for the assistance which he has extended both to the Settlement Officers and to myself. I also take this opportunity of thanking the Commissioners and the District Officers, in whose charges settlement work has been proceeding, for the co-operation and sympathy which they have always extended to the work of the Department.

I have the honour to be,

SIR,

Your most obedient servant,

M. C. MCALPIN.

Director of the Department of Land Records, Bengal.

APPENDICES.

[*N.B.*—Figures in these Appendices which do not agree with those in the last year's Report are revised figures.]

APPENDIX I.

PROGRESS OF SURVEY AND THE PREPARATION OF A RECORD-OF-RIGHTS IN THE PROVINCE.

Summary.

NAME OF DISTRICT.	Area (excluding large rivers).	RESERVED FORESTS.		UNSETTLED WASTE AT THE DISPOSAL OF GOVERNMENT.		SETTLED AREA TO WHICH THE BENGAL TENANCY ACT HAS NOT BEEN EXTENDED.		SETTLED AREA TO WHICH THE BENGAL TENANCY ACT HAS BEEN EXTENDED.			
									Area in which a record-of-rights—		
		Area.	Scale and date of survey.	Area.	Scale and date of survey.	Area.	Date of cadastral survey under other Acts.	Total.	Has been finally published.	Is in course of preparation.	Remains to be prepared.
1	2	3	4	5	6	7	8	9	10	11	12
Burdwan	2,878	...	...	...	...	...	...	2,878	76	23	2,779
Birbhum	1,740	...	...	...	...	...	.....	1,740	209	...	1,531
Bankura	2,621	...	...	...	...	...	.....	2,621	51	4	2,566
Midnapore	5,407	...	...	...	...	...	.....	5,407	1,059	2,674	1,669
Hooghly	1,723	..	...	...	...	...	.....	1,723	49	3	1,671
24-Parganas	4,844	1,756	...	1,191	...	...	.....	1,595	115	25	1,752
Calcutta	8	...	...	...	...	8	1911 in respect of 4 sq. miles.	...	...	...	...
Nadia	2,725	...	...	...	...	...	.....	2,725	45	8	2,672
Murshidabad	2,014	...	...	...	...	...	.....	2,014	130	11	1,873
Jessore	2,925	...	...	...	...	...	.....	2,925	82	...	2,843
Khulna	4,785	2,085	...	...	...	...	.....	2,676	246	...	2,430
Dacca	2,770	...	...	...	...	...	.....	2,750	119	2,631	...
Mymensingh	6,336	...	...	...	...	...	.....	6,336	2,284	2,994	1,128
Faridpur	2,461	...	...	...	...	...	.....	2,461	2,596(b)	...	19(c)
Bakarganj	3,490	181	16" = 1 mile, district operations, 1905-06.	516	16" = 1 mile, district operations.	416	.....	2,427	2,427	...	...
Chittagong ...	2,492	584	4" = 1 mile scale, 1888-89.	488	16" = 1 mile, 1908-10.	...	.....	1,442	1,374	..	68
Noakhali	1,649	...	...	...	...	...	.....	1,649	568	168	933
Tippera	2,499	...	...	...	...	...	.....	2,499	991(c)	...	1,508
Rajshahi	2,616	...	...	...	...	...	.....	2,616	68	1,719	836
Dinajpur	4,132	..	...	...	...	...	.....	4,132	517	...	3,615
Jalpaiguri	2,974	506	4" scale season, 1907-1910.	...	...	832	4" scale, season, 1907-1910.	2,037	2,037	...	...
Rangpur	4,090	...	...	...	...	...	.....	4,090	143	...	3,947
Bogra	1,359	...	...	...	...	...	.....	1,359	53	...	1
Pabna	1,839	...	...	...	...	...	.....	1,839	68(c)	...	1,648
Malda	1,822	...	...	...	...	...	.....	1,822	88	...	1,744
Darjeeling	1,164	436	1 mile=4" 1905.	22	...	706	Kalimpong, 1902-1903; Siliguri, 1897-1898; West Duars, 1906-1907. Act V of 1876.	...	...	...	...
Total ...	73,103	5,482	...	2,215	...	1,512	.....	63,893	10,449	10,446	37,998

(a) Ten square miles recently transferred from Jessore and Khulna.
(b) Includes Diara strips in Tippera and Pabna.
(c) See Faridpur for river strips done from there.

APPENDIX II.

General Progress in Survey and Settlement Work during the year ending the 30th September 1914.

District Operations.

Branch of Work.	Units of report.	Dacca.					Mymensingh.					Faridpur.				
		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Traverse Survey (under Settlement Officer).	Square miles	1st October 1909.	3,350	.....	.....	.....	1907	6,431	.....	.....	.....	1904-05	2,896	.....	.....	1,064
Cadastral Survey	Ditto	.....	.....	670	725	3,157	.....	.....	850	850	3,230	.....	.....	.....	.....	2,696
Khanapuri	Ditto	.....	.....	670	786	3,157	.....	.....	850	850	3,230	.....	.....	.....	.....	2,696
	Plots	.....	.....	737,000	710,673	2,508,536	.....	.....	914,524	914,524	4,000,461	.....	.....	.....	.....	2,100,000
Preliminary Office Work	Square miles	.....	.....	670	779	3,130	.....	.....	900	900	3,306	.....	.....	.....	.....	2,696
	Ditto	.....	.....	900	979	3,130	.....	.....	871	847	3,306	.....	.....	.....	.....	2,696
Bujharat	Plots	.....	.....	800,000	797,317	3,419,917	.....	.....	916,137	888,182	4,040,306	.....	.....	.....	.....	2,100,000
	Interests	.....	.....	275,000	262,400	1,401,046	.....	.....	268,066	269,074	1,371,918	.....	.....	.....	.....	1,000,000
Attestation	Square miles	.....	.....	940	1,040	2,943	.....	.....	847	900	4,453	.....	.....	.....	.....	2,696
	Interests	.....	.....	.....	200,592	1,214,042	.....	.....	187,666	176,176	1,072,367	.....	.....	.....	.....	1,000,000
Draft Publication	Square miles	.....	.....	775	1,039	2,943	.....	.....	847	900	4,453	.....	.....	.....	.....	2,696
Objections under section 103A	Ditto	.....	.....	900	1,075	2,930	.....	.....	897	900	4,672	.....	.....	.....	.....	2,696
	Cases	.....	.....	12,000	12,340	52,891	.....	.....	10,025	9,925	51,264	.....	.....	.....	.....	50,744
Final Office work—																
Jamch	Square miles	.....	.....	900	1,060	2,930	.....	.....	1,498	1,598	4,301	.....	.....	.....	.....	2,696
Statistics	Ditto	.....	.....	900	1,060	2,943	.....	.....	1,800	897	3,498	.....	.....	127	127	2,696
Preparation of 16" maps	Ditto	.....	.....	778	423	946	.....	.....	1,700	871	2,969	.....	.....	220	220	2,696
Topographical maps	Ditto	.....	.....	.....	.....	.....	.....	.....	1,700	532	454	.....	.....	923	923	2,696
Preparation of final records	Ditto	.....	.....	675	161	161	.....	.....	1,370	897	2,300	.....	.....	771	771	2,696
	Interests	.....	.....	237,500	114,660	114,660	.....	.....	320,000	189,497	479,175	.....	.....	268,943	268,943	1,000,000
Final publication	Square miles	.....	.....	134	30	30	.....	.....	920	1,050	2,254	.....	.....	1,872	1,872	2,696
	Ditto	.....	.....	134	30	30	.....	.....	920	1,023	1,024	.....	.....	1,140	1,066	1,911
Recovery of costs	Amount Rs— (a) Voluntary	.....	.....	19,708	0 0 19,708	0 0	.....	.....	2,102	1,220	2,402	.....	.....	13,38,940	7,34,230	12,63,594
	(b) By certificate	.....	.....												16,380	24,491
Case work under section 103A	Cases	.....	.....	.....	.....	.....	.....	.....	5,795	436	1,131	.....	.....	1,822	136	136
" 105	Do.													41,823	16,762	20,029
	Tenancies	.....	.....	.....	.....	.....	.....	.....	39,436	9,613	.....	.....	.....	60,888	37,464	25,137
" 106	Cases	.....	.....	.....	.....	.....	.....	.....	908	422	739	.....	.....	11,474	6,934	7,393

General Progress in Survey and Settlement Work done during the year ending the 30th September 1914.

District Operations—*contd.*

Branch of Work.	Unit of report.	Midnapore.					Rajshahi.					Jalpaiguri.				
		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done—		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	*Work done—		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done—	
					In the year under report.	Up to date.				In the year under report.	Up to date.				In the year under report.	Up to date.
		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		1910	4,138	.....	.....	.....	1910	2,610	.....	.....	.....	1906	2,904	.....	.....	.....
Traverse Survey (under Settlement Officer).	Square miles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cadastral Survey	Ditto	.....	.....	907	907	2,822	.....	.....	670	670	1,712	.....	2,037	.....	.....	2,037
Khanapuri	Ditto	.....	.....	954	954	2,879	.....	.....	670	670	1,712	.....	2,037	.....	.....	2,037
	Plots	.....	.....	1,655,981	1,655,981	3,665,714	.....	.....	1,089,760	1,164,339	2,918,723	.....	.....	.....	.....	161,704
Preliminary Office Work	Square miles	.....	.....	954*	954*	2,564	.....	.....	670	670	1,712	.....	2,037	.....	.....	2,037
	Ditto	.....	.....	1,062	1,062	2,921	.....	.....	996	974	1,690	.....	2,037	.....	.....	2,037
Bujharat	Plots	.....	.....	1,268,191	1,268,191	1,268,824	.....	.....	1,346,272	1,336,722	2,589,616	.....	.....	.....	.....	161,704
	Interests	.....	.....	213,825	213,825	474,357	.....	.....	304,320	248,219	412,005	.....	.....	.....	.....	240,960
Attestation	Square miles	.....	.....	1,065	1,065	2,921	.....	.....	842	818	818	.....	2,037	.....	.....	2,037
	Interests	.....	.....	213,825	213,825	474,357	.....	.....	299,154	242,504	253,004	.....	.....	.....	.....	240,960
Draft Publication	Square miles	.....	.....	1,065	1,065	2,921	.....	.....	842	818	818	.....	2,037	.....	.....	2,037
	Ditto	.....	.....	1,065	1,065	1,065	.....	.....	842	781	781	.....	2,037	.....	.....	2,037
Objection under section 103A ...	Cases	.....	.....	17,705	17,704	25,602	.....	.....	.....	9,203	9,203	.....	.....	.....	.....	9,144
Final Office work—																
Jamba	Square miles	.....	.....	1,072	1,072	1,125	.....	.....	842	464	464	.....	2,037	132	132	2,037
Statistics	Ditto	.....	.....	1,072	1,072	1,125	.....	.....	.....	Nil	Nil	.....	2,037	633	633	2,037
Preparation of 16" maps	Ditto	.....	.....	660	55	55	.....	.....	.....	Nil	Nil	.....	2,037	732	626	2,004
Topographical maps	Ditto	.....	.....	.....	.....	.....	.....	.....	.....	313	563	.....	.....	.....	.....	.....
Preparation of final records	Ditto	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,037	1,480	1,480	2,037
	Interests	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	179,000	179,000	240,960
Final publication	Square miles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,037	1,480	1,480	2,037
	Ditto	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	907	702	595	902
Recovery of costs	Amount Rs.— (a) Voluntary ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	(b) By certificate ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Case work under section 103A ...	Cases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	3	
,, ,, 106	Do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,126	3,125	3,225
,, ,, 106	Tenancies	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
,, ,, 106	Ditto	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,124	347	347

* Includes 47 square miles of revisional work in Patampur.

General Progress in Survey and Settlement Work done during the year ending the 30th September 1914.

Minor Operations.

BRANCH OF WORK.	Unit of report.	BURDWAN.			BIRBHUM.			SANKURA.			HOOGHLY.			24-PARGANAS.			NADIA.			MURSHIDABAD.			JESSORE.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
				Rs.			Rs.			Rs. A. P.			Rs.			Rs.			Rs.			Rs. A. P.			Rs. A. P.
Traverse Survey (under Settlement Officer).	Square miles ...	6·23	6·23	.....	.....	.....	.....	5·56	4·77	646 4 3	4·65	4·65		4·49	4·49	...	1·24	1·24	...	14	14	3,820 4	.....	.....	.....
Cadastral Survey ...	Ditto ...	6·23	6·23	...	... ...	.....	...	5·56	4·43	1,080 3 9	4·65	4·65	394	4·62	4·62	...	1·24	1·24	...	14	14		.....	.....	.....
Khanapuri	Ditto ...	6·23	2·46	...	.....	.....	...	3·90	2·38	229 13 11	4·65	4·65		4·62	4·32	...	1·24	1·24	...	24	24	2,065 7 11	.....	.....	.....
	Plots ...	9,564	3,329	...	.....	.....	...	.....	3,877		5,905	5,905		2,800	2,800	...	699	699	...	31,939	31,939		.....	... ...	.....
Preliminary Office Work...	Square miles ...	Nil	2·46	...	.....	.....	...	.....	.....	.....	4·65	4·65	.....	4·32	3·98	...	.....	.....	...	24	24	1,636 12 4	.....	.....	.....
Bujharat	Ditto ...	7·89	7·89	...	.....	.....	...	3·90	2·48	62 5 0	4·65	4·65		4·32	1·90	...	24	24	...	24	6		.....	.....	.....
	Plots ...	13,226	11,571	...	.....	.....	...	.....	.....	.....	5,905	5,905		2,826	237	...	350	350	...	31,939	5,422	319 13 4	.....	.....	.....
	Interests ...	3,086	2,701	...	.....	.....	...	.....	.....	.....	1,801	1,801		1,414	101	...	127	127	...	.....	.....		.....	.....	.....
Attestation	Square miles ...	10·13	9·27	...	.....	.....	...	3·90	.....	.....	4·65	4·65	2406(a)	4·55	1·90	...	3·21	3·26	...	24	6	338 6 4	.....	.....	.....
	Interests ...	3,946	3,570	...	.....	.....	...	.....	.....	.....	1,801	1,801		1,414	101	...	.....	.....	...	.....	.....		.....	.....	.....
Draft Publication ...	Square miles ...	10·13	9·27	...	.....	.....	...	3·90	.....	.....	4·65	4·65		·19	.....	...	2·62	2·62	...	20	2	43 0 0	2·08	2·08	.....
Objection under section 103A.	Ditto ...	13·60	9·07	...	.....	.....	...	3·90	.....	.....	4·65	·65	187	1·48	1·45	...	2·62	2·62	...	.....	.....	.....	.....	.....	.....
	Cases ...	Nil	2,126	...	.....	.....	...	.....	.....	.....	304	301		137	103	...	113	118	...	182	40	.....	122	.....	.....
Final Office work—																									
Jamba	Square miles ...	11·73	4·22	...	.....	.....	...	.....	.....	.....	4·65	1·65		1·57	1·57	...	.....	.....	...	5	4		2·08	2·08	.....
Statistics	Ditto ...	9·55	Nil	...	.....	.....	...	.....	.....	.....	4·65	1·65		1·57	.....	...	.....	.....	...	5	4	20 0 0	.....	.....	.....
Preparation of 16" maps.	Ditto ...	11·53	4·22	...	.....	.....	...	.....	.....	.....	4·65	4·65		1·57	1·57	...	.....	.....	...	5	4		.....	.....	.....
Topographical maps	Ditto ...	Nil	Nil	...	.....	.....	...	.....	.....	.....	.....	.....		... ...	.....	...	.....	.....	...	.....	.....		... ...	.....	.....
Preparation of final records.	Ditto ...	9·55	1·90	...	.....	.....	...	.....	.....	.....	4·65	1·65	166	1·57	1·57	...	5·56	5·56	...	5	4	20 0 0	.....	.....	.....
	Interests ...	4,169	778	...	.....	.....	...	.....	.....	.....	677	677		677	677	...	1,006	1,006	...	... ...	.....	.....	.....	.....	.....
Final publication ...	Square miles ...	6·50	1·32	...	.....	.....	...	... ...	.....	...	4·65	1·65		1·57	1·57	...	5·56	.....	...	.....	.....	.....	2·08	2·08	.....
Recovery of costs ...	Ditto ...	.....	.....	...	2·30	2·30	...	.....	.....	.....	6·22	6·22	3,762	5·50	5·50	...	9·28	9·28	...	.....	.....	.....	.....	.....	.....
Case work under section 106A.	Cases ...	.....	.....	...	2	2	...	.....	.....	.....	40	40	.....	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....
Case work under section 109.	Do. ...	.....	.....	...	47	47	...	.....	.....	.....	924	924	6,289	819	824	...	.....	.....	...	.....	.....	.....	.....	176	.....
Case work under section 112.	Do. ...	.....	.....	...	.....	.....	...	.....	.....	.....	181	181		99	79	...	.....	.....	...	.....	.....	.....	.....	32	.....
Case work under section 113.	Do. ...	.....	.....	...	354	354	...	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....
Case work under section 104K (1).	Do. ...	.....	.....	...	223	222	...	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....
Revision in temporarily-settled areas—																									
(a) Final publication, section 103A	Square miles ...	.....	.....	...	.....	.....	...	.....	... ...	.....	3·90	3·90	with(a)	.....	.....	...	.....	.....	...	.....	.....	.....	·32	·32	.....
(b) Final publication	Ditto ...	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....
Total cost ...	Amount Rs. ...	.....	.....	9,996	.....	.....	11,823	.....	.....	2,818 13 11	.....	.....	9,694	.....	.....	4,527	.....	.....	1,241	.....	.....	6,372 0 0	.....	.....	2,013 12 3

General Progress in Survey and Settlement Work done during the year ending the 30th September 1914.

Minor Operations—*concluded.*

Branch of work.	Unit of report.	Jessore—Khulna. (Mokimpur Estate.)			Khulna.			Faridpur.			Bakarganj.			Tippera.			Noakhali.			Dinajpur.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
				Rs.			Rs.			Rs.			Rs. A. P.			Rs. A. P.			Rs. A. P.			Rs. A. P.
Traverse Survey (under Settlement Officers).	Square miles...	.....	.....	...	30	29	120	.....	.....	.....	30	34	1,335 0 0	.....	.....		.....	.....	.....	.....	.....	.....
Cadastral Survey ...	Ditto ...	.....	.....	...	29	29	436	3	3	770	30	34	2,991 0 0	.....	.....		3·1	3·1	372 14 2	.....	.....	.....
Khanapuri	Ditto ...	.....	.....	...	29	29	180	.....	.....	.....	45	49	4,039 0 0	.....	.....		3·1	3·1	218 6 6	.....	.....	.....
	Plots ...	.....	.....	...	234	234	...	.....	.....	.....	38,088	38,088		.....	.....		6,495	6,495		.....	.....	.....
	Interests ...	.....	.....	...	37	37	...	.....	.....	.....	.....	.....		.....	.....		.....	.....		.....	.....	.....
Preliminary Office Work	Square miles	... ...	.....	...	29	29	95	.....	.....	.....	45	49	1,150 0 0	.....	.....		3·1	3·1	39 13 4	.....	.....	.....
Bujharat	Ditto ...	.....	.....	...	29	29	210	17·5	17·5		45	45		.....	.....		11·5	3·59		.....	.....	.....
	Plots ...	.....	.....	...	234	234	...	12,361	12,361	777	38,088	38,732	6,026 10 1	.....	.....		6,616	3,502	2,671 1 0	.....	.....	.....
	Interests ...	.....	.....	...	37	37	...	4,882	4,882		12,250	11,372		.....	.....		3,315	2,861		.....	.....	.....
	Square miles...	.....	.....	...	29	29	476	17·5	17·5	524	43	46		.....	.....		92·16	36·23		.....	.....	.....
Attestation	Interests ...	.....	.....	...	37	37	...	4,882	4,882		18,907	16,703		.....	.....		22,930	22,426	12,158 13 0	.....	.....	.....
	Square miles ...	.....	.....	...	1·25	1·25	124	17·5	17·5	30	75	74	3,953 0 0	.....	.....		92·16	63·71		.....	.....	.....
Draft Publication ...	Ditto ...	.....	.....	...	.....	.....	...	17·5	17·5		75	2		1	1		39·9	14		.....	.....	.....
Objection under section 103A.	Cases ...	64	64	...	11	11	134	53	53	300	387	5		6	6		2,606	73	510 11 7	.....	.....	.....
Final Office work—																						
Jamabandi	Square miles	14·84	14·84	...	1·25	1·25	63	.....	.....	.....	9	9	1,364 0 0	1	1		88	23·5		.....	.....	.....
Statistics	Ditto ...	.....	.....	...	1·25	1·25	55	.....	.....	.....	.....	.....		.....	.....		88	21		.....	.....	.....
Preparation of 16" maps.	Ditto ...	25·33	25·33	...	1·25	1·25	37	.....	.....	.....	39	16	1,120 0 0	1	1	426 3 6	88	30·3		.....	.....	.....
Topographical maps	Ditto ...	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	1,287 4 6	.....	.....	.....
Preparation of final records.	Ditto ...	.....	.....	...	1·25	1·25	64	.....	.....	.....	.....	.....	.....	1	1		88	10·5		.....	.....	.....
	Interests ...	.....	.....	...	192	152	...	.....	.....	.....	39	.....	1,364	1,364			28,749	1,587		.....	.....	.....
Final publication ...	Square miles	25·33	25·33	...	1·25	1·25	97	.....	.....	.....	43	18	.....	1	1		88	1·5		.....	.....	.....
Recovery of costs ...	Ditto ...	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....	2	1		5	4·3	460 6 3	.....	.....	762 11 2
Draft publication of rent-roll.	Ditto ...	.....	.....	...	.....	.....	...	16	16	955	.....	.....	.....	.....	.....		.....	.....		.....	.....	.....
Case under section 103A.	Cases ...	10	... ...	...	5	5		.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....
Case under section 106.	Do. ...	6,213	.....	...	80	40	350	.....	.....	.....	.....	.....	.....	362	148		.....	.....	.....	.....	.....	.....
Case under section 108.	Do. ...	61	.....	...	7	7		.....	.....	.....	.....	.....	.....	7	5		.....	.....	.....	.....	.....	.....
Contingencies	.....	.....	.....	...	.....	.....	...	.....	.....	394	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....
Revision in temporarily settled areas—																						
(a) Draft publication.	Square miles	.....	.....	...	.....	.....	...	.....	.....	.....	.....	.....	.....	30·15 (acres).	30·15 (acres).		60·76	27·26	1,998 3 1	.....	.....	.....
103A. section																						
(b) Final publication.	Do. ...	.....	.....	...	.....	.....	...	.....	.....	.....	39	26	1,687 0 0	30·15 (acres).	.....		54·72	1·3		.....	.....	.....
Total cost ...		.....	.....	6,994	.....	.....	3,919	.....	.....	4,020	.....	.....	23,595 10 1	.....	.....	426 3 6	.....	.....	19,793 9 6	.....	.....	762 11 2

APPENDIX III.

Return of Disputes and Inspections during the year ending the 30th September 1914.

District.	Area in square miles cadastrally surveyed during the season.	Personal partal in linear miles.			Independent partals in linear miles.	Total number of plots Khanapuri'ed.	Number of plots tested.			Number of boundary disputes decided.	Number of Internal disputes decided.	
		Gazetted Officers.	By Kanungos and Head Inspectors.	By Inspectors.			By Gazetted Officers.	By Kanungos and Head Inspectors.	By Inspectors.		During Khanapuri and Bujharat.	During attestation.
1	2	3			4	5	6			7	8	
Burdwan	6·23	8·60	Nil	16·91	4·75	3,399	315	Nil	433	7	Nil	1,706
Bankura	5·56	415·78 chains.	...	...	69·30 chains.	3,877	219	...	...	7	...	...
Midnapore	854	430	461	2,121	1,240	1,635,081	21,387	25,517	197,486	1 0	18,122	25,035
Hooghly	4·6	6·6	...	8·5	2·3	6,809	700	...	1,415	...	5	243
24-Parganas	4·5	7	...	...	...	8,809	324	...	...	3	75	2
Nadia	1·24	...	...	...	...	699	106	383	...	2	...	19
Murshidabad ...	8,783	2·27	...	6·32	...	21,929	2,624	...	3,734	8	48	Nil
Khulna	·39	1·03	...	...	·36	224	63	...	...	1	...	12
Dacca	735	193	2,471	...	...	730,673	...	53,297	...	28	2,202	4,128
Mymensingh	850	1·5	2,152	Nil	Nil	914,524	Figures not known. All plots tested at Bujharat.			273	No statistics collected.	
Bakarganj	24	11	64	...	...	38,098	187	11,400	...	...	337	120
Noakhali	8·1	·12	12·63	...	...	6,495	3	108	...	15	1,865	427
Rajshahi	670	4·8	3,269	...	...	1,165,330	3,710	85,705	...	110	3,966	4,754

APPENDIX IV.

Progress in Revision of Land Revenue during the year ending the 30th September 1914.

District.	Number of estates under revision.	Total area in acres.	Area in which Rent-Roll has been drafted published.		Objections under section 104E.		Area in which rent-roll confirmed under section 104F.	Effect on the rental of raiyats.									Area in which record-of-rights finally published.	Number of estates in which revision of land revenue completed.	Financial result.			
			In the year under report.	Up to the end of the year under report.	Pending for decision.	Decided.		Old rent.	New rent.	Amount of increase due to—					Amount of decrease due to—					Old revenue.	New revenue.	Percentage of increase of rent.	Percentage of increase of revenue.
										Increase in size.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease in area.	Deterioration of the soil.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A. P.	Rs. A.				Rs. A. P.	Rs. A. P.		
Hooghly	5	2,682·91	...	...	...	...	...	...	...	...	...	Under the Regulations		...	...	...	833·91	2	1,512 0 0	2,283 0 0	...	50·99
Nadia	26	790	...	16,090	...	...	...	483 0 0	534 0 0	3 0 0	9 0 0	52 0	...	...	...	...	...	15	2,837 0 0	3,275 0 0	9 30	28
Murshidabad	3	776·63	...	776·63	...	...	...	3,385 10 6	3,125 11 6	...	...	...	...	...	249 15	...	...	...	2,621 14 0	2,417 13 0	...	...
Jessore	1	204·00	...	...	...	...	204·00	360 0 0	412 7 0	...	187 7 0	...	...	...	...	...	...	...	...	...	28	...
Khulna	1	189	...	...	...	...	...	223 0 0	831 0 0	222 0 0	...	386 0	...	...	...	...	...	1	178 0 0	674 0 0	272	276
Dacca	515	61,795·76	53,587·70	54,779·16	76	183	13,214·24	21,928 12 1	36,995 4 10	5,049 14 1	2,239 5 1	1,856 10	1,556 10	5,398 11 7	30 10	...	270	122	13,871 7 3	30,207 2 10	76	125
Mymensingh	74	16,020	6,988	13,159	81	225	6,656	8,803 0 0	9,370 0 0	...	267 0 0	...	400 0	600 0 0	...	...	6,656	30	6,687 0 0	7,480 0 0	16	12
Faridpur	22	11,289	11,200	11,200	...	...	1,026	1,972 0 0	2,330 0 0	358 0 0	...	...	...	16 0 0	16 0	...	...	17	1,946 0 0	2,210 0 0	18	19
Backpur (including river Padma of Tippera and Padma.)	5	16,586	16,586	16,586	...	...	16,586	29,698 0 0	34,476 0 0	...	...	4,276	...	7,502 0 0	...	...	16,586	5	29,689 0 0	35,401 3 0	22	24
Bakarganj	62	61,200	22,922	30,419	2	...	1,449·77	4,359 11 0	5,020 12 0	...	...	671 1	...	...	...	...	11,908	9	21,183 10 4	28,272 14 2	15·20	33·76
Tippera	1	50·15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Noakhali	39	75,852	20,572	22,197	72	130	17,627	5,094 8 0	15,637 6 0	8,184 7 0	631 8 0	...	3,732 15	...	...	...	1·80 square mile.	6	5,173 14 0	15,969 8 10	207	208
Jalpaiguri	4	474,240	174,080	665,600	...	1,397	474,240	1,85,784 0 0	2,82,480 0 0	...	...	...	...	...	...	...	665,600	4	2,41,527 0 0	3,77,963 0 0	56·03	56·7

Return of Rent-Settlement in areas not under revision of Land Revenue during the year ending the 30th September 1914.

District.	Commutation under section 40.			Proceedings under section 109(c) (West Bengal District only).				Proceedings under section 105.										
												Analysis of variations in the case of raiyats.						
												Amount of increase due to—					Amount of decrease due to—	
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Number of tenants.	Rent according to landlord's.	Rent legally payable.	Rent settled by compromise.	Class of tenants.	Number of tenants for whom a fair rent has been determined.	Former rent.	New rent.	Difference, per cent. + or −.	Increase in area.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease of area.	Deterioration of the soil.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Rs.	Rs.	Rs.			Rs. A. P.	Rs. A. P.					Rs. A. P.	Rs. A. P.		
Burdwan	...	...	...	...	...	...	...	Blank	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...
Irbhum	...	...	...	...	...	...	...	Tenure-holders	10	1,969 9 0	1,253 4 0	−17·21	.....	.....	.....	183 12 0	...	...	...
								Raiyats	27	223 12 0	331 11 0	+48·76	.....	.....	.....	108 12 0	...	...	...
								Under-raiyats	.....	.....	.....	.....	...	.....	.....	.....	...	...	...
Bankura	...	...	...	...	...	...	...	Blank	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...
Midnapore	Nil							Nil										Nil	
Hooghly	32	...	32	...	...	...	...	Tenure-holders, newly assessed with rents.	64	.....	294 0 0	.....	.....	.....	.....	.....	...	...	...
								Raiyats with existing rents.	612	3,229 0 0	3,730 0 0	+15	145	.....	.....	356 0 0	...	...	...
								Raiyats newly assessed with rents.	204	.....	1,242 0 0	.....	.....	.....	.....	.....	...	...	...
24-Parganas	...	...	...	...	...	...	...	Raiyats	340	14,865 0 0	18,632 0 0	+ 25	3,767	.....	.....	.....	...	...	...
								Under-raiyats	14	548 0 0	572 0 0	+ 4·5	24	.....	.....	.....	...	...	...
Nadia	...	...	...	...	...	...	...	Blank	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...
Murshidabad ...	...	...	...	...	...	...	...	Blank	.....	...	.....	.....	.....	...	.....	.....	...	...	...
Jessore	...	...	...	...	...	...	...	Tenure-holders	6	507 9 0	606 8 3	+19·49	.....	.....	.....	98 15 3	...	...	...
								Raiyats	315	1,938 6 4	2,747 0 10	+38·12	.....	.....	.....	.....	758 10 6	...	...
Khulna	...	...	...	...	...	...	...	Raiyats	52	682 0 0	786 0 0	+ 15	.....	.....	.....	103 0 0	...	...	...
Dacca	122	93	29	...	...	...	...	.....	.....	... ...	.....	.....	.....	.....	.....	.....	...	...	...
Mymensingh	...	...	...	...	...	...	...	.....	9,615	76,899 0 0	94,428 0 0	+24 *	*	.....	.....	*	...	Nil	Nil
Faridpur	39	23	16	...	...	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...
Faridpur (including river islands as in Tippera and Pabna).	...	...	...	...	...	...	...	Tenure-holders	2,191	25,345 0 0	29,804 0 0	+18	.....	.....	.....	.....	...	...	...
								Raiyats	10,656	58,659 9 0	69,023 0 0	+24	6,339	.....	635	7,269 0 0	707 0 0	...	...
Backergunj	...	...	...	...	...	...	...	Nil	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...
Tippera	...	...	...	...	...	...	...	Raiyats	148	.....	296 4 0	+100	.....	.....	.....	.....	296 4 0	...	...
Noakhali	...	...	...	...	...	...	...	Nil	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...
Rajshahi	Blank, as no case work has yet been done.																		
Dinajpur	...	...	...	...	...	...	...	Blank	... ...	.....	.....	.....	.....	.....	.....	.....	...	...	...
Jalpaiguri	...	...	...	...	...	...	...	Tenure-holders	1,947	20,562 0 0	23,728 0 0	+15·7	.....	.....	.....	.....	...	...	...
								Raiyats	1,193	12,383 0 0	16,750 0 0	+35	.....	.....	.....	4,167 0 0	...	...	...
								Under-raiyats	225	5,774 0 0	6,620 0 0	+14·9	...	.....	.....	865 0 0	...	...	...

* Increase in column 13 is due to increase in columns 14 and 17.

APPENDIX VI.

Results of Appeals during the year ending the 30th September 1914.

NAME OF ESTATE OR TRACT UNDER SETTLEMENT.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	Decided— Upheld.	Modified.	Revised.	Cases returned for retrial.
1	2	3	4	5	6	7	8	9	10
Burdwan	.....	7	...	7	...	1	...	...	...
Birbhum	Section 105 ...	53	33	83	5	25	1	21	36
	Ditto 106 ...	4	1	5	Nil	2	...	1	2
Midnapore	Boundary disputes	Nil	22	22	Nil	17	...	2	3
	Fine appeals ...	Nil	16	16	Nil	12	2	2	Nil
	Miscellaneous (unl) appeals.	Nil	94	93	1	69	...	23	3
Hooghly	Section 105 ...	91	21	38	74	36	...	...	2
	Ditto 106 ...	6	...	1	5	1	...	...	...
24-Parganas	Section 105 ...	...	13	...	13	...	...	...	...
	Ditto 106 ...	...	17	5	12	3	...	...	2
Nadia	Ditto 105 ...	24	...	22	2	16	...	...	4
Murshidabad	Boundary dispute	...	4	2	2	2	...	...	...
Jessore—Bagura tauzi No. 233	Section 105 ...	...	6	...	6	...	...	...	...
	Ditto 106 ...	...	2	...	2	...	...	...	...
Nalsinghapur tauzi No. 231.	Ditto 105 ...	...	14	...	11	...	...	...	...
Dacca	Fine cases ...	4	4	8	...	2	1	5	...
	Boundary dispute cases.	2	3	5	...	5	...	...	...
Mymensingh	Section 105 ...	43	37	43	37	15	10	..	18
	Ditto 106 ...	2	18	2	18	1	1	...	...
Faridpur (including River Sirpa of Tippera and Pabna).	Section 104— Special Judge ...	7	357	178	86	134	34	...	10
	High Court ...	1	...	1	...	...	...	1	...
	Section 106— Special Judge ...	1	175	143	33	127	3	...	3
	High Court ...	...	...	...	...	...	...	...	...
Tippera	Section 105 ...	...	3	3	...	3	...	...	...
Dinajpur	32	26	...	20	...	6	19	1	...
Jalpaiguri	Section 105 ...	...	12	2	10	2	...	...	...
Ditto (Pargana Baikuntha-pur).	Section 106 ...	...	56	30	26	25	...	3	2

APPENDIX VII.

Nature and number of Holdings recorded in each Settlement during the year ending 30th September 1914.

District.	Name of each tract under settlement.	Number of khatians recorded in the name of—												
		Proprietors—		Tenure-holders entitled to fixed possession.	Ryots at fixed rates or fixed rents.	Settled ryots.	Occupancy ryots.	Non-occupancy ryots.	Rent-free holders.		Unclassified.	Government.	Total.	Undertakings.
		As private lands.	Not as private lands.						Service tenures.	Others.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Burdwan	Private and Wards' estates.	.....	.....	14	27	1,978	1	2	34	555	26	4	2,639	133
Midnapore	Districtoperations	...	1	.....	Not reported.	6,778	2,40,062	772	2,169	2,197	10,213	Not reported.	913	.....	16,514
Hooghly	Government estates	.....	.....	.....	254	772	.....	226	6	218	1	16	1,493	250
	Private estates	.....	19	.....	3	248	15	6	.....	14	1	2	308	1
24-Parganas	Private estates	.....	.....	36	.....	486	.....	4	1	47	4	.....	580	124
Nadia	Private estates	.....	6	.....	.....	377	.....	184	.....	291	.....	.....	858	1
	Government and temporarily-settled private estates.	.....	12	.....	.....	97	6	21	.....	.....	.....	.....	136	57
Jessore	Private estates	4	3	1	3	284	1	.....	1	49	.....	2	348	776
Khulna	Private estates	.....	.....	.....	.....	5	.....	.....	.....	2	1	.....	8	11
Dacca	.....	Statistics not collected at attestation.												
Mymensingh	.....													
Bakarganj	Government and temporarily-settled private estates.	.....	13	70	.....	1,881	21	93	.....	12	.....	13	2,093	904
Noakhali	Private estates	.....	302	6,143	782	11,172	19	142	57	.....	6	22	18,692	1,240
	Government and temporarily-settled private estates.	.....	7	1,193	.....	3,627	156	1,282	.....	.....	1	1,226	7,512	266
Rajshahi	.....	Statistics not collected at attestation.												

APPENDIX VIII.

Progress made in recovery of costs during the year ending the 30th September 1914.

Division.	District.	Estate or tract under settlement.	DEMAND (OUTSTANDING plus CURRENT).			COLLECTIONS.							BALANCE.		
						Landlord's share.			Occupier's share.			Grand total collected.			
			Landlord's share.	Occupier's share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.		Landlord's share.	Occupier's share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
RAJSHAHI	Dinajpur ...	Jhingrah	.....	5,120 0	5,120 0	.....	...	.....	4,771 0	341 0	5,112 0	5,112 0	.....	8 0	8 0
CHITTAGONG	Noakhali ...	.....	5,608	2,517 0	8,125 0	.....	.....	.....	1,011 8	161 0	2,072 8	3,087 8	5,608 0	414 8	6,022 8
PRESIDENCY DIVISION	24-Parganas	Putni Zamindari Estate-	3,637	.....	3,637 0	770 0	2,867 0	3,637 0	.....	.....	.....	3,637 0	.....	.....	.....
CHITTAGONG	Tippera ... ,,	Ditto	.....	63 1	63 1	.....	.....	.....	63 1	.....	63 1	63 1	.....	.....	.....
	Noalia ... ,, ,,	Ditto	722	.....	722 0	722 0	.....	722 0	... ...	.....	.....	722 0	.....	.....	.....
	Hooghly ... ,,	Ditto	2,511	12,336 0	18,057 0	3,085 14	1,051 11	4,137 9	1,179 5	1,295 2	2,474 7	11 612 0	703 7	4,761 9	(a)16,466 0
	Birbhum ... ,,	Ditto	.....	316 11	316 11	.....	.....	.....	167 3	149 8	316 11	316 11	.....	.....	.....
	Birbhum ... ,,	Rampur Hat and Bhadesran	.....	.....	.....	.....	.....	.....	Separate	...	...	1,785 3	.....	...	4,48,73. 10
DACCA DIVISION ...	Dacca ... ... ,,	Bhowal	2,53,508	1,78,900 0	4,28,400 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Mymensingh	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Faridpur	In pipli (an artificial creation of Lakes and Hijuahs	12,26,946	... ...	12,26,946 0	7,21,508 0	1,99,9 0	7,41,5.7 0	.....	.....	... ...	41 537 3	6,85,1.- 0	.....	4,-.34- 1
RAJSHAHI	Jalpaiguri	Bhutia tea estates	56,314	2,74,025 0	3,30,231 0	26,164 0	.....	26,164 0	2 24,445 0	2 00. 0	2,26 31. 0	2,52,57. 0	2,850 0	44 9 0	47,2-- 0

(a) Out of this amount collection work was suspended in respect of Rs. 4,000 in the flood-affected area, and Rs. 267 is irrecoverable being the Government share of the cost as proprietor.

APPENDIX IX.

Expenditure for work done (including all book-debit charges) during the year ending 30th September 1914.

District Operations.

Branch of work.	Dacca.						Mymensingh.						Faridpur.					
	In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse Survey (done by Settlement Officer.)	.....	900	.....	.....	4,002	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,064	28,316	26
Cadastral Survey	725	66,631	91	3,157	2,86,231	91	850	77,633	91	5,330	5,30,996	100	.....	.....	.....	2,696	2,53,060	122
Khanapuri	786	27,786	35	3,157	1,52,177	48	850	31,328	37	5,330	1,93,642	37	.....	.....	.....	2,696	1,21,066	49
Preliminary Office Work ...	779	5,764	7	3,130	41,924	13	850	13,888	16	5,330	57,338	16	.....	.....	.....	2,696	52,677	19
Bujharat	829	50,370	61	3,130	2,59,938	83	847	67,566	80	5,306	3,96,639	75	.....	.....	.....	2,696	3,65,136	135
Attestation	1,050 (excluding Dacca town).	31,834	49	2,641	2,73,923	88	809	48,150	60	4,423	2,61,909	59	.....	.....	.....	2,696	1,68,479	62
Objections	1,075	9,171	8	2,920	31,532	13	809	13,528	17	4,425	74,503	17	.....	.....	.....	2,696	1,04,596	39
Final Office work—																		
Jamch	1,080	5,841	5	2,920	24,777	10	1,608	16,946	11	4,391	46,970	13	.....	.....	.....	2,696	1,40,461	52
Statistics	1,050	13,621	13	2,641	33,293	13	857	7,016	8	2,521	22,361	9	127	2,631	20	2,696	38,111	13
Preparation of 16" maps	423	2,581	6	948	5,636	6	871	5,071	6	2,049	22,783	8	230	1,392	6	2,696	31,348	12
Topographical maps ...	.....	.....	.....	.....	.....	.....	525	618	1	525	749	1	533	1,057	1	2,696	10,786	4
Final records	181	18,174	100	181	18,174	100	397	36,926	40	2,260	31,741	36	771	72,135	95	2,696	2,79,466	100
Computation and recovery	340	3,115	8	380	3,115	8	1,023	13,177	12	1,974	21,126	11	1,086	19,866	18	1,981	40,076	20
Case work	.....	.....	.....	.....	.....	.....	497	11,386	23	798	17,745	22	.....	46,007	.....	.....	54,852	.....
Supervision	.....	99,233	.....	.....	3,12,189	.....	.....	98,955	.....	.....	5,64,153	.....	.....	31,497	.....	.....	2,93,488	.....
Supplies, services and contingencies.	.....	70,209	.....	.....	2,38,924	.....	.....	49,394	.....	.....	3,25,896	.....	.....	23,602	.....	.....	5,62,545	.....
Jamabandi	.....	17,755	.....	.....	17,755	.....	.....	1,231	.....	.....	3,481	.....	.....	149	.....	.....	39,921	.....
Diara	.....	7,214	.....	.....	14,438	.....	.....	.....	.....	.....	.....	.....	.....	690	.....	.....	20,938	.....
Partition	.....	8,626	.....	.....	7,675	.....	.....	.....	.....	.....	126	.....	.....	8,709	.....	.....	23,170	.....
Cess revaluation	.....	18,327	.....	.....	29,223	.....	.....	.....	.....	.....	.....	.....	.....	12,107	.....	.....	45,109	.....
Jurisdiction list	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,149	.....
Janjira	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	380	.....	.....	328	.....
Total cost ...	.....	4,85,024	.....	.....	17,47,024	.....	... ...	4,04,917	.....	.....	26,50,388	.....	.....	2,31,172	.....	.....	38,56,217	.....

Expenditure for work done (including all book-debit charges) during the year ending 30th September 1914.

District Operations—*concluded.*

BRANCH OF WORK.	MIDNAPORE.						RAJSHAHI.						JALPAIGURI.					
	In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area	Cost.	¡Cost-rate.
	29	31	32	33	34	35	36	37	38	29	30	31	33	33	34	35	36	37
	.....	Rs.	Rs.	.....	Rs.	Rs.	.....	Rs.	Rs. A. P.	.....	Rs.	Rs. A. P.	.....	Rs.	Rs.	.....	Rs.	Rs.
Traverse survey (done by Settlement Officer).	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cadastral survey	854†	1,55,460	169	2,879	3,41,897	119	870	86,128	99 0 0	1,712	1,72,544	101 5 11	.....	.....	.....	2,037	2,39,564	118
Khanapuri							870	45,578	52 6 2	1,712	79,964	46 11 4	.....	.....	.....	2,037	108,433	53
Preliminary office work ...	854†	56,909	73	2,832	1,13,278	40	870	11,342	13 0 7	1,712	22,113	13 8 0	.....	.....	.....	2,037	69,297	34
Bujharat	1,065	77,829	73	2,021	1,43,881	71	974	88,411	90 12 4	1,690	151,139	89 8 9	.....	.....	.....	2,037,	1,67,601	82
Attestation							818	49,316	60 4 7	818	49,316	60 4 7	.....	.....	.....	2,118	1,03,097	48
Objections	1,055	10,782	10	211	17,993	860	781	7,801	9 15 9	781	7,801	9 15 9	.....	.....	.....	2,118	26,321	12
Final office work—																		
Janch	1,073	33,931	31	1,126	35,109	31	484	6,321	17 3 0	484	6,321	17 3 0	113	5,820	53	2,037	1,05,906	52
Statistics	.....	2,057	.....	.....	2,057	.....	.....	262	.....	.....	262	.....	533	5,103	6	2,037	23,402	11
Preparation of 16" maps.	.....	2,883	.....	55	3,937	72	.....	.....	..	.....	.....	.....	635	6,326	10	2,044	36,343	17
Topographical maps ...	.....	.....	.....	.....	.....	.....	312	2,468	7 14 7	362	2,864	7 1 5	.....	.....	.....	.....	.....	.....
Final records	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,480	43,657	30	2,037	58,813	28
Computation and recovery	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	525	7,196	13	525	7,576*	13
Case work	.....	4,045	.....	.....	4,045	.....	.....	.....	.....	.....	.....	.....	.....	14,967	.....	.....	14,967	.....
Supervision	.....	75,283	.....	.....	1,81,408	.....	.....	74,434	.....	.....	1,28,910	.....	.....	41,757	.....	.....	2,85,201	.....
Supplies, services and contingencies—																		
Ordinary	.....	66,362	.....	.....	2,18,208	.....	.....	62,362	.....	.....	89,889	.....	.....	12,302	.....	.....	1,72,706	.....
Press	.....	51,423	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	664	.....	.....	664	.....
Jamabandi	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,478	.....	.....	1,35,126	.....
Diara	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Partition	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cess revaluation	.....	9,199	.....	.....	9,076	.....	.....	3,866	.....	.....	3,866	.....	.....	9,991	.....	.....	21,514	.....
Total cost ...	.....	9,16,036	.....	.....	19,80,189	.....	.....	4,40,369	.....	.....	7,20,209	.....	.....	1,86,261	.....	.....	13,66,401	.....

* Includes Rs. 280 on account of computation work in 1913-13.
† Includes 47 square miles of revisional work to Patnaspur.

APPENDIX X.

Result of Inspection of Survey Marks during the year ending 30th September 1914.

DIVISION AND DISTRICT.	Total number of stations under Survey Act or Bengal Survey Act.	Total number of permanent (or semi-permanent) boundary marks were inspected.	Number of marks erected (mentioned in column 4).	Number of marks found during the year under report.	RESULT OF INSPECTION OF MARKS SHOWN IN COLUMN 5. Number in fair order.	Number dam-aged.	Number miss-ing.	Number of damaged or missing marks restored.	Cost of restoration and how met.	*Result of prosecution, if any.*
1	2	3	4	5	6	7	8	9	10	11
BURDWAN DIVISION.				GOVERNMENT AND TEMPORARILY-SETTLED ESTATES.					Rs. A. P.	
Burdwan	.....	18	371	285	217	41	27	.....	.....	
Birbhum	3	3	14	14	14	.....	.....	.....	.....	
Bankura	48	48	48	48	.....	.....	.....	.....	.....	
Midnapore	48	48	2,743	2,614	2,405	125	81	3	.....	
Hooghly	57	54	612	612	572	.....	40	8	40 0 0	
PRESIDENCY DIVISION.										
24-Parganas	30	20	2,215	1,783	1,588	136	59	2	1 2 3	
Nadia	47	32	1,068	548	533	12	3	12	25 0 0	
Murshidabad	64	39	915	915	396	6	113	82	Rupees 77-4 met from Collector's budget and Board's grant.	
Jessore	3	2	34	34	34	.....	.....	.....	.....	
Khulna	26	13	293	293	137	29	37	.....	.....	
DACCA DIVISION.										
Mymensingh	35	7	498	498	378	106	39	.....	.....	
Bakarganj	174	111	345	282	282	.....	.....	.....	.....	
CHITTAGONG DIVISION.										
Tippera	142	.....	201	96	48	37	11	...	.....	
Noakhali	13	.....	.....	129	124	2	3	.....	.....	
Chittagong	5	5	1,460	899	732	5	162	1	.....	
RAJSHAHI DIVISION.										
Bogra	2	2	478	422	402	.....	.....	.....	.....	
Malda	16	16	158	158	157	.....	1	1	From khasmahal contingent grant.	
Darjeeling	4	3	192	192	192	.....	.....	.....	.....	
Rangpur	.....	9	89	12	5	6	3	1	.....	
To'al ...	677	414	11,993	9,355	8,188	497	570	80		
BURDWAN DIVISION.				WARDS' ESTATES.						
Bankura	23	22	915	49	46	...	3	...	... ...	
Hooghly	6	6	40	40	40	...	...	...	.....	
Midnapore	4	4	2,037	2,037	1,374	...	630	...	.....	
PRESIDENCY DIVISION.										
Murshidabad	1	1	47	4	...	3	1	...	.....	
DACCA DIVISION.										
Bakarganj	3	3	1,096	1,084	1,037	10	37	...	... ...	
CHITTAGONG DIVISION.										
Tippera	2	2	3,054	222	194	22	76	...	.....	One man was prosecuted but acquitted by the Court.
RAJSHAHI DIVISION.										
Dinajpur	2	2	683	132	132	...	...	...	.....	
Malda	2	3	162	103	97	1	5	6	Met by Chairman Estate.	
Total ...	44	41	7,376	3,748	2,921	36	751	6	.....	
BURDWAN DIVISION.				ZAMINDARI ESTATES.						
Burdwan	71	50	266	236	234	...	2	...	.....	
Bankura	61	61	299	291	249	13	29	6	By the Burdwan Raj.	
Hooghly	16	12	115	113	115	...	...	...	.....	
Birbhum	5	4	348	348	340	2	8	30	Rupees 110-9-10 received from proprietors of estates.	
Midnapore	3	3	599	599	476	2	128	3	Rupees 24-6 met by Burdwan Raj.	
PRESIDENCY DIVISION.										
Murshidabad	17	12	1,751	1,396	1,257	...	142	138	Rupees 76-0-8 met from the fund at Director of Land Records' disposal.	
Jessore	1	20	497	393	393	...	...	...	.....	
Nadia	2	2	37	37	37	...	...	...	.....	
Khulna	15	15	493	230	198	10	22	...	.....	
24-Parganas	39	33	287	12	9	...	3	...	.....	
DACCA DIVISION.										
Bakarganj	3,053	3 053	4,307	650	649	1	...	...	.....	
RAJSHAHI.										
Bogra	2	2	35	35	24	...	7	...	.....	
Malda	4	4	498	494	60	2	91	1	.....	
Total ...	3,361	3,243	9,707	4,840	4,101	30	459	180	.....	
GRAND TOTAL ...	3,982	3,698	28,677	17,943	15,210	563	1,810	283	.....	

APPENDIX XI.

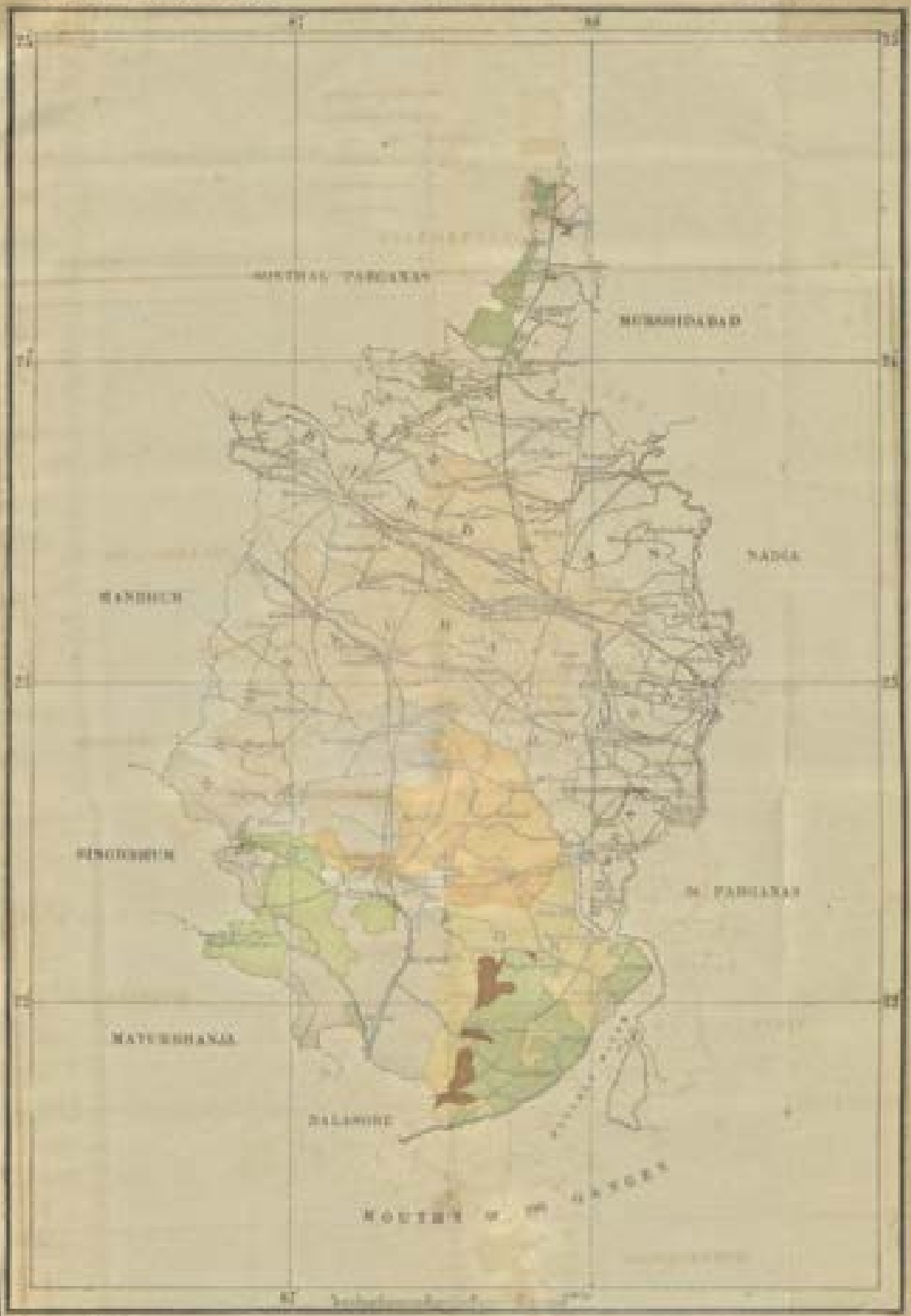
Statement showing maps in stock, received and sold during the financial year ending 31st March 1914.

Particulars.	Number of maps.	Value.	Number of maps of which there are more than four copies in stock.	Remarks
1	2	3	4	5
		Rs. A.		
District maps—				
Balance on 1st April 1913.	40	...	...	
Additions during the year.	..	...	...	
Total ...	40	...	...	
Issue on public service	...	...	...	
Issue by sale ...	...	...	...	
Total ...	...	...	...	
Balance on 31st March 1914.	40	...	...	
Thana maps—				
Balance on 1st April 1913.	22,967	...	...	
Additions during the year.	630	...	...	
Total ...	23,597	...	...	
Issue on public service	2,087	...	...	
Issue by sale ...	600	429 4	...	
Total ...	2,687	...	...	
Balance on 31st March 1914.	20,910	...	...	
Village maps (sheets)—				
Balance on 1st April 1913.	147,699	...	...	
Additions during the year.	7,782	...	...	
Total ...	155,481	...	...	
Issue on public service	9,550	...	...	
Issue by sale ...	2,749	2,564 8	...	
Total ...	12,299	...	...	
Balance on 31st March 1914.	143,182	...	...	

B. S. Press- 20-2-1915—2659J—365—C. A. P.

BURDWAN DIVISION

PROGRESS OF MAJOR SETTLEMENT WORK
TO 30TH SEPTEMBER 1938.



REFERENCES

LUSHAI HILLS
NORTHERN ARAKAN
CHITTAGONG DIVISION

PROGRESS OF MAJOR SETTLEMENT WORK

RAJSHAHI DIVISION

REFERENCES

REVENUE DEPARTMENT.

LAND REVENUE.

CALCUTTA, THE 20TH FEBRUARY 1915.

RESOLUTION—No. 2004.

READ—

The Survey and Settlement Reports for the year ending on the 30th September 1914.

THE reports show marked progress in carrying out the great task of surveying and preparing a record of rights for the districts of this Presidency. During the year records of rights were finally published for an area of 4,492 square miles, and records have now been completed for over 15,000 square miles, or nearly a quarter of the area in which the Bengal Tenancy Act is in force. The area in which records of rights have been finally published includes the districts of Chittagong, Bakarganj, Faridpur and Jalpaiguri. The work is in progress in Dacca, Mymensingh, Midnapore, Rajshahi and Noakhali, while the traverse survey of Bankura and Jessore has just begun. According to a rough programme of future operations, which has recently been drawn up in consultation with Commissioners, the traverse survey of the Presidency will be completed about 1927 and the record of rights some four or five years later.

2. The Survey Department was employed during the year, in connection with major operations under the Bengal Tenancy Act, in the districts of Mymensingh, Midnapore, Rajshahi and Noakhali. The traverse survey of Mymensingh was completed, and in Midnapore an area of less than 400 square miles remains. The total area surveyed during the year was 3,630 square miles as against 3,562 square miles in the previous year. The programme was everywhere carried out in full, and the expenditure in no case exceeded the standard cost-rates recently adopted. In addition to district surveys, the Department had to deal with various miscellaneous items of work, the most important of which were the Howrah town survey and the survey, on behalf of the Calcutta Improvement Trust, of the Calcutta added area and of the Maniktala, Tollygunge, South Suburban and Cossipore-Chitpur Municipalities. The work of preparing revenue maps in the Maniktala and Tollygunge Municipalities was hampered by delay in the disposal of disputes and in carrying out the attestation of the records. The Collector of the 24-Parganas should arrange, in consultation with the Director of Surveys, to deal with these matters as promptly as possible.

3. The survey school which was opened at Mainamati, near Comilla, on the 2nd January 1914 has made a good start in spite of a serious fire, which unfortunately broke out in August and destroyed the main school building and the Principal's house. Of the 41 students who went through the first year's course, the Director of Surveys has selected about 25 for employment in the major traverse party, and he expects to be able to find appointments for most of the remainder. The Governor in Council is glad to see that an active interest is being taken in the school by several gentlemen who have kindly given prizes for the encouragement of the students, and he hopes that the school will succeed in proving its utility, both to Government and to the public, in preparing young men for the useful and interesting career which is open to a land-surveyor in this province.

4. Except for the disposal of cases filed after final publication and the recovery of costs, the work of the Settlement Department in Faridpur and Jalpaiguri was completed during the year. In the Sonthal area of Birbhum the proceedings for the settlement of fair rents under section 112 of the Bengal Tenancy Act have been confirmed by the Governor-General in

Council since the close of the year, and the operations are now being wound up. In Dacca, Mymensingh, Rajshahi and Midnapore, good progress was made, and the programme for the year was successfully carried out, except in Midnapore, where, owing to the serious floods which occurred in the autumn of 1913, the operations had to be suspended in an area of about 150 square miles. The collapse of the jute market in August on the outbreak of the war seriously interfered with the recovery of the costs in the Eastern Bengal districts during the last two months of the year, in which large payments would ordinarily have been made out of the profits of the jute crop. Collections were made only from those who paid voluntarily and the use of coercive measures against defaulters was almost entirely suspended.

The settlement of rents in the Government estates in Jalpaiguri, and the land revenue settlement in the diara area of Faridpur have been practically concluded. In Dacca, where an area of 110 square miles is under land revenue settlement, most of the draft rent-rolls have been published. The new rental shows an increase of 75 per cent., due mainly to extension of cultivation, and it is reported that in the vast majority of cases the rents fixed have been accepted by the raiyats without objection. The land revenue, payable by the landlords to Government, has not yet been assessed, but a considerable increase is expected.

The settlement of fair rents in permanently-settled estates was carried out on a considerable scale in the districts of Faridpur, Mymensingh and Jalpaiguri, in each of which the landlords obtained a substantial increase in their existing rental. The main ground of enhancement was the rise in the price of staple food crops, but considerable additions to the rent-roll were also made on account of the assessment of excess areas. Cess revaluation by the Settlement Department was completed in the districts of Faridpur and Jalpaiguri, and in about one-third of the total number of estates in the district of Dacca. The results of the revaluation based upon the settlement record have been very satisfactory, in spite of the fact that no account could be taken of enhanced rents settled under section 105 of the Bengal Tenancy Act after the final publication of the record-of-rights. The increases secured in the cess demand are 60 per cent. in Faridpur, 40 per cent. in Jalpaiguri, and 44 per cent. in Dacca. In Midnapore the procedure for cess revaluation laid down in chapter IIA of the Cess Act, which is not in force in Northern and Eastern Bengal, has been found unworkable, the main difficulty being the necessity of completing the valuation-roll at attestation and before draft publication. It has, therefore, been decided that the Settlement Department should complete the revaluation only of the four thanas already taken up, the remaining thanas being left to be dealt with by the Collector after the settlement is completed. The question of amending the Cess Act, so as to remove the defects brought to light in Midnapore, is under consideration.

5. The general agrarian conditions of the Eastern Bengal districts have been fully described in previous reports. The present report contains some interesting information regarding Midnapore and Rajshahi, which have been taken up more recently. Midnapore may almost be described as a province in miniature. The north and west of the district include aboriginal tracts in which the conditions resemble those found in the most backward areas of Chota Nagpur; the south consists mainly of Government estates; while the eastern portion comprises private estates, in many of which a system of coparcenary and subinfeudation prevails, hardly less complex than that of Eastern Bengal. Rajshahi is the first district of Northern Bengal (excluding Jalpaiguri and Darjeeling in which the conditions are peculiar) in which settlement operations have been undertaken on a large scale. The result so far seems to justify the view, which has sometimes been expressed, that the preparation of a record-of-rights for the protection of the tenantry is nowhere more urgently needed than in Northern Bengal. The description given in the report of the relations between landlord and tenant in the Naogaon subdivision reveals a most lamentable state of affairs. With a few notable exceptions, mismanagement and absenteeism appear to be the main characteristics of the permanently-settled estates. The levy of extortionate *abwab*, varying from four annas

to nine annas per rupee of the rent, and of other illegal exactions is common, the tenants being too much afraid of their landlords or too ignorant of their own rights to resist these unjustifiable demands. It is reported that in many of the smaller estates every artifice is employed to dispossess a raiyat in order that the land may be re-let on a produce rent, and to defeat the rights of heirs to succeed to occupancy holdings, particularly when they are females or minors or distant collaterals. The detection of these malpractices will, it is hoped, induce absentee proprietors, who have any regard for their own reputation, to look more closely into the actions of their agents and to take measures for discharging their responsibilities for the proper treatment of their tenantry.

6. Minor settlement operations in respect of scattered estates were in progress in thirteen districts. The inspections of the Director of Land Records revealed various defects in some of the proceedings, which had previously been outside his control, and steps are being taken to remedy them as far as possible. The record of status in some of the minor settlements in the Presidency Division seems to have been unsatisfactory and will require careful re-examination when the district operations are undertaken.

7. The reports received from district officers contain satisfactory evidence that full use is being made of the settlement records in ordinary administrative work and in criminal and civil litigation. In Bakarganj, where the record was not printed, no less than 17,355 applications were received for copies of the record-of-rights and connected papers. The maintenance of boundary marks seems to have received adequate attention in most districts. More than half the boundary marks in charge of District Officers were inspected, and the majority were found to be in good condition. The Director should draw the attention of the District Officers concerned to the cases in which steps have not yet been taken to restore damaged or missing marks.

8. The exhaustive examination of settlement finance and expenditure, which was begun nearly three years ago, has been completed, and a full report on the whole subject has recently been submitted to the Government of India. Revised and detailed estimates have been drawn up for each of the districts in which the work is now in progress, and, on the basis of the investigation made into the cost of the different branches of the work, revised standard cost-rates have been worked out for use in the preparation of estimates of the cost of the operations in new districts, and as a check on expenditure in operations in progress. The revised district estimates were not completed in time for use in connection with the reports under review, and the Director of Land Records has consequently been able to examine the actual expenditure only by reference to the new standard cost-rates, some of which have been slightly varied since the report was written. The reports contain ample evidence of the sustained efforts which are being made to conduct the operations with the utmost economy compatible with efficiency, but it is most desirable that Government should receive timely information of the effects of any change of programme or procedure on the scale of expenditure. Future reports should therefore include a comparison of the actual progress and expenditure in each settlement with the revised detailed programmes and estimates which have been drawn up., a clear explanation being given of any material deviations from the programme and of any important divergence from the scale of expenditure shown in the estimates. The same course should be followed in the Survey report as soon as orders have been passed on the questions now under consideration regarding the distribution of control and other miscellaneous charges over the different items of work.

9. The thanks of the Governor in Council are due to Major Hirst and Mr. McAlpin for their efficient administration of the Survey and Settlement Departments throughout the year. His Excellency in Council desires also to acknowledge the good work done by the officers in charge

of the major settlements. The names of the other officers who have been specially mentioned in the final chapters of the reports will be duly noted.

ORDER :—Ordered that this Resolution be published in the *Calcutta Gazette* and that a copy of it, with copies of the two reports, be submitted to the Government of India.

By order of the Governor in Council,

J. H. KERR,
Secretary to the Govt. of Bengal.

No. 2005.

COPY, with copies of two reports, forwarded to the Surveyor-General of India for information.

No. 2006.

COPY, with a copy of the Survey Report, forwarded to the Municipal Department of this Government, for information.

No. 2007.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government for information, with special reference to paragraph 9 of the Resolution.

No. 2008.

COPY, with a copy of the Survey Report, forwarded to the Commissioner of the Presidency Division with special reference to the concluding sentence of paragraph 2 of the Resolution.

Nos. 2009-10.

COPY forwarded to the $\frac{\text{Director of Land Records, Bengal}}{\text{Director of Surveys, Bengal and Assam}}$ for information.

By order of the Governor in Council,

J. N. MITRA,
Under-Secretary to the Govt. of Bengal.

CALCUTTA,
The 20th February 1915.

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